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PROCEEDINGS

SCIENTIFIC ASSOCIATION

TRINIDAD.

PART VI.

JUNE 1869.

RANUNCULACE.E.

NARAVELIA Zeylanica, DC. Coylon.

CLEMATIS Caripensis, Kunth. Western Tropics.

DILLENIACE.E.

DILLENIA speciosa, Thund. India.

scaberella, Roab.

TETRACERA ovalifolia, DC. Trinidad, Venezuela.

DAVILLA rugosa, Toir.

Assam.

W. Indies (Trinidad), Venezuela, Cuiana.

252 PROCEEDINGS OF THE SCIENTIFIC ASSOCIATION.

CURATELLA Americana, L. Western Tropics.

MAGNOLIACEÆ.

MAGNOLIA grandiflora, L. North America.

ferruginea, Andre. North America.

,, sphenocarpa, Roxb. Bengal.

TALAUMA pumila, Andr. Amboyna.

MICHELIA Champaca, L. Tropical Asia.

SCHIZANDREÆ.

KADSURA Roxburghiana, Arnott. Silhet, Trop. Himalayas, SPHÆROSTEMA grandiflora, Blume. Temp. Himalayas.

ANONACEÆ.

ANONA muricata, L.

reticulata, L

,, squamosa, L.

,, palustris, L.

,, Cherimolia, Mill., laurifolia, Don.

ROLLINIA Sieberi, A.DC.

" multiflora, Splitz.

 $\operatorname{CANANGA}$ odorata, Hook .

ANAXOGORA acuminata, St. Hil. Trinidad, Guiana.

UNONA discolor, Vahl.

,, lævigata, Wall.

" macropetala, Java.

ARTABOTRYS odoratissimus, R. Br. Ceylon, Java. GUATTERIA subcrosa, Dunal. S. India, Ceylon.

W. Indies, Tropical South

America.

W. Indies (Trinidad).

W. Indies (Trinidad).

W. Indics (Trinidad), Tropical S. America.

Mexico to New Grenada.
Jamaica, Tropical America.

Mexico, Trinidad, St. Vin-

cent.

India.

China.

Trinidad, Trop. S. America. Java. XYLOPIA frutescens, Aull. W. Indies (Trinidad).

MONODORA grandiflora, Benth. Guinea.

MILLUISIA montana, Gard. S. India, Ceylon.

GONIOTHALAMUS Gardnerii. India.

MENISPERMACELE.

COCCULUS Domingensis, DC. W. Indies (Trinidad), Tropical S. America.

,, palmatus, Decsne.

THIACORA acuminata, Miers. Trop. India, Ceylon, Java: ANAMIRTA Cocculus, W. & A. India, Ceylon, Malayan Isles.

CISSAMPELOS Periera, L. All Tropical Countries.

BERBERIDEÆ.

BERBERIS emarginata,

North Asia.

NELUMBIACE.E.

NELUMBIUM speciosum, Wild. Asia, Tropical Australia. ,, luteum, Wild. Trop. S. America, Jamaica

NYMPHACE.E.

VICTORIA regia, Lindl.

Amazon.

EURYALE ferox, Salisb.

Bengal, China.

NYMPH.EA ampla, DC.

W. Indies, Mexico to Brazil.

, elegans,

Mexico.

,, gigantea, Hook.

Australia.

,, rubra,

India.

,, dentata,

Sierra Leone.

PAPAVERACEÆ.

ARGEMONE Mexicana, L.

Tropical Asia & America.

CRUCIFERE Æ.

CHEIRANTHUS Cheiri, L.

AUBREITIA gracilis, Spruce.

IBERIS umbellata, L.

BRASSICA oleracea, L.

SINAPIS alba, L.

brassicata, L.

RAPHANUS sativus, L.

LEPIDIUM Virginicum, L.

Europe.

South Europe.

South Europe. South Europe.

South Europe.

Tropics.

Tropics.

South Europe.

Western Tropics.

Western Tropics.

W. Indies (Trinidad).

North America, and W. Indies.

CAPPARIDEÆ.

CLEOME pentaphylla, DC.

speciosa, Kunth.

pungens, Wild.

CRATÆVA gynandra, L.

Roxburghii, Br.

W. Indies (Trinidad). CAPPARIS Jamaicensis, Jacq.

vars. a & b, Grise. ,,

cynophallophora, L. W. Indies (Trinidad). W. Indies (Trinidad).

verrucosa, Jacq.

W. Indies (Trinidad). frondosa, Jacq.

India, Ceylon. horrida, L.

STERIPHOMA elliptica, Spruce. Trinidad, Cumana.

RESEDACEÆ.

RESEDA odorata, L.

Shores of the Mediterranean.

POLYGALACEÆ.

POLYGALA Timoutou, Aubl. W. Indies (Trinidad).

longicaulis, Kunth. W. Indies (Trinidad). 9.3

POLYGALA variabilis, Kunth.

W. Indies (Trinidad).

,, Americana, Mill.

W. Indies (Trinidad).

CATACOMA lucida, Benth.

Trinidad, Trop. S. America.

SECURIDACCA volubile, L. Jamaica, Trinidad.

PITTOSPORACEÆ.

PITTOSPORUM undulatum, N. S. Wales.

,, Tobira,

,, crassifolium, New Zealand.

VIOLARIEÆ.

VIOLA odorata, L.

Europe.

Japan.

,, tricolor, L.

Europe.

BIXACEÆ.

BIXA orellana, L. Western Tropics.

FLACOURTIA Ramontchii, *Herit.* India.

,, cataphraeta, Rox. India.

., sepiaria, Rox. India.

SAMYDEÆ.

CASEARIA sylvatica, Swartz. W. Indies (Trinidad).

,, serrulata, Smartz. W. Indies (Trinidad).

,, parviflora, Wild. W. Indies (Trinidad).

GUIDONIA spinescens, Grise. Cuba, Trinidad, Guiana.

CARYOPHYLLACEÆ.

DIANTHUS Chinensis, L. China.

,, Hedwegii, Levant.

" laciniatus,

,, caryophyllus, Europe.

DRYMARIA cordata, Wild.

Tropics.

PORTULACACEÆ.

PORTULACA oleracea, L. Tropics, and Temperate Zones.

pilosa, L. Mexico to Brazil. Gilliesii, Mendoza.

PORTULACARIA afra, Jacq. Cape Good Hope:

MALVACEÆ.

ALTHEA sinensis, Cav. China:

flore plena,

MALVASTRUM spicatum, Grise. W. Indies (Trinidad).

tricuspidatum, Grise. W. Indies (Trinidad).

SIDA carpiniifolia, L. W. Indies (Trinidad).

rhombifolia, L. vars. a & b, Most Tropical Countries.

Grise.

urens, L.

W. Indies, West Africa, Madagascar.

Western Tropics.

Brazil.

Peru.

Tropics. cordifolia, L.

ABUTILON periplocifolium, G. Don. Western Tropics.

Indicum, G. Don.

striatum, Dick.

molle, G. Don.

atropurpureum, E. Indies.

West Africa. BASTARDIA viscosa, H.B.

MALACHRA capitata, L. Western Tropics, Tropical

Africa.

palmata, Micha. Cuba, Trinidad. 22

| MALACHR | A radiata, <i>L</i> . | Western Tropics. |
|-----------|-----------------------|---------------------------------------|
| URENA lob | oata, L. | Tropics. |
| ,, sin | uata, L. | Tropics. |
| PAVONIA | bracteosa, Benth. | Trinidad, Guiana. |
| ,, | typhæleoides, Kunth. | Trinidad, Trop. S. America. |
| ,, | racemosa, Swartz. | Western Tropics. |
| MALVAVI | SCUS arboreus, Car. | Jamaica, Bahamas. |
| ,, | mollis, DC . | Mexico. |
| | CHUS moschatus, M | ichx. Central America. |
| ,, | esculentus, W.A. | W. Indies, Guiana. |
| | trilobus, Car. | Jamaica, Trinidad. |
| ,, | Canabinus, L. | India. |
| ,, | Sabdariffa, L. | W. Indies (Trinidad). |
| ,, | fragilis, L. | India, Bourbon. |
| ,, | Lampas, Car. | India, Ceylon, Java. |
| ,, | Lindleyana, Wall. | Tavoy. |
| ,, | fastigiatus, | India. |
| ,, | tulipitlorus, Hook. | Dominica, Trinidad, |
| ,, | Rosa-sinensis, L . | China, India. |
| ,, | ,, var. flava-plena. | |
| ,, | ,, ,, rubra plena | |
| ;, | ,, ,, variegata. | |
| ,, | ,, ,, Indicus. | |
| ,, | populifolius, Don. | India. |
| ,, | liliiflorus, | China. |
| ,, | callosus, Blume. | Java, |
| ,, | tricuspis, Car. | India, Society Isles. |
| | grandiflorus, Michx. | · · · · · · · · · · · · · · · · · · · |
| " | phoeniceus, Jacq. | W. Indies, Venezuela. |
| COSSUPIT | - | |
| COOCILIO. | M barbadense, L. | W.Indies, Trop. S. America. |

W. Indies, Tropical S. GOSSYPIUM herbaceum, L. America.

PARITIUM tiliaceum, Adr. Juss. Tropical Seashores.

Tropical Sonth America. elatum, Don. THESPESIA populnea, Corr. Society Islands.

BYTTNERIACEA.

W. Indies (Trinidad).

W. Indies (Trinidad).

Timor, Australia.

India, Moluccas.

South Africa.

West Africa.

Venezuela. Venezuela.

India.

India.

Bourbon.

Java, Mauritius.

GUAZUMA tomentosa, Kunth. Western Tropics.

ulmifolia, Lam.

THEOBROMA Cacao, L.

HERRANIA albiflora,

ABROMA fastuosa, R. Br.

augusta, L. f.

BYTTNERIA scabra, L.

KLEINHOVIA hospita, L.

DOMBEYA mollis, Hook.

Mastersii, Hook.

KYDIA calycina, Rox.

RUIZIA variabilis,

ERIOLÆNA Hookeriana, W. et A. South India.

VISENIA velutina, Voigt.

PTEROSPERMUM acerifolium.

Wild. India.

semisagittatum,

Ham. Assam.

STERCHLIACE.E.

ADANSONIA digitata, I. West Africa.

TACHIRA aquetica, Add. W. Indies, Trop.S. America. ,, Javanica, Java. EDIODEND ROH anfractureum, D. C. Western Tropics. DURIO zebethinus, Ruzzi. India. OCHROMA lagopus, Searts. W. Indies (Trinidad). HELICTEPES Jamais analog, Jung. VI. Indies. larmon is, Jucq. W. Indies (Trinidad). virgata, Tall. China. HERITIERA littoralis, Act. India, Ceylon, Java. Pengal. minor, Lun. MATISIA cordata, H. P. New Grenada. STERCULIA Carthaginens's, Car. New Grenada. ,, caribon, R. Pr. W. Indies (Trinidad). feetida, L. India, Ceylon. East Indies. ED. COLA acuminata, R. Pr. Tropical Africa. THEIACEM. TRIUMPETTA Lappula, L. W. Indies (Trinidad). macrophylla, Vall. Trinidad, Guiana. semitriloba, L. Tropics. SPARMANNIA Africana, L. Africa. CORCHORUS olitorius, L. India. Western Tropics. MUNTINGIA Calabura, L. APEIBA Tibourbou, Aubl. Western Tropics. ulmifolia, H. B. Orinoco. Petoumou, Aubl. Trinidad, Venezuela. SLOANEA Madagascariensis, Madagascar.

Senemariensis, Aubl.

,,

GREWIA major, Juss.

India.

sepiaria, Rox.

Bengal.

BERRYA amonilla, Rox.

S. India, Ceylon.

TERNSTROEMIACEÆ.

CAMELLIA Japonica, L.

China, Japan.

THEA viridis, L.

China.

var. erecta,

North India.

GUTTIFERÆ.

QUINA Creugeriana, Grise.

Trinidad.

" Guianensis, Aubl.

Trinidad, Guiana.

TOVOMITA Amazonica, Walp. Trinidad to Brazil.

CLUSIA rosea, L.

W. Indies (Trinidad).

flava, L.

Jamaica, Trinidad.

sp.

St. Lucia.

MORONOBEA coccinea, Aubl.

W. Indies (Trinidad), Tropical S. America.

MAMMEA Americana, L.

W. Indies, Venezuela.

humilis, I.

Western Tropics.

CALOPHYLLUM Calaba, Jacq. W. Indies (Trinidad).

inophyllum, L. Ceylon, India.

GARCINIA Mangostana, L.

Malayan Peninsula and Islands.

Gambogia, Desrous. South India, Ceylon.

Livistonii,

India?

cornea, L.

Malayan Peninsula and Islands.

XANTHOCHYMUS ovalifolius, Rox. Ceylon.

pictorius, Rox. South India, Ceylon. ,,

MESUA ferrea, L.

South India, Ceylon.

MARCGRAVIACEÆ.

NORANTEA Guianensis, Wild. Trinidad, Guiana.

RUYSCHIA Souroubea, Wild. Trinidad, Guiana.

MARCGRAVIA umbellata, L. W. Indies (Trinidad), Venezuela.

HYPERICINE.E.

MARILA racemosa, Swartz.

W. Indies (Trinidad).

VISMIA ferruginea, Kunth.

W. Indies (Trinidad). W. Indies (Trinidad).

,, Cayennensis, Pers. W. Inc HYPERICUM Japonicum, Thunb. Japan.

ANCISTROLOBUS carneus, Wall. China.

RHIZOBOLE.E.

CARYOCAR nuciform, L. Guiana.

,, butyrosum, Wild. Guiana.

,, glabrum, Pers. Guiana.

SAPINDACEÆ.

CARDIOSPERMUM Helicacabum, L. Tropical Asia.

microcarpum, Kunth. Tropics.

SERJANIA paucidentata, DC. Trinidad, Guiana.

PAULLINIA pinnata, L. Tropies.

,, vespertilio, Swartz. W. Indies (Trinidad),
Guiana.

CUPANIA Americana, L. W. Indies (Trinidad),

Tropical America.

BLIGHIA sapida, Kan. Western Africa.

SAPINDUS Saponaria, L. W. Indies (Trinidad), Tropical America.

| SAPINDU | S Indieus, Poir. | India. |
|----------|------------------------------|---------------------------|
| ,, | emarginatus, Vahl. | India, Ceylon. |
| ,, | fruticosus, Rox. | Moluceas. |
| ,, | sp. | Bengal. |
| NEPHELI | UM Litchi, W. et A. | China. |
| ,, | Mora, | China, Japan. |
| 99 | erectum, | India. |
| ,, | sp. | |
| MELICOC | CA bijuga, <i>L</i> . | W. Indies (Trinidad). |
| HYPELAT | E trifoliata, Sw. | Trinidad, Guiana. |
| DODONEA | viscosa, L. | Tropics. |
| FELICIUN | I decipiens, Thuaites. | . Ceylon. |
| URVILLE | A ferruginea, $H.B.A$ | ű. |
| | MALPIGHI | ACEÆ. |
| BYRSONI | MA spicata, Rich. | W. Indies (Trinidad). |
| ,, | crassifolia, Kunth | . W. Indies (Trinidad). |
| BUNCHOS | ${ m SIA}$ polystachya, DC | W. Indies (Trinidad). |
| ,, | sp. | Trinidad. |
| MALPIGH | IA glabra, L. | W. Indies, Tropical South |
| | | America. |
| ,, | coccigera, L . | W. Indies. |
| ,, | urens, L . | W. Indies. |
| ,• | punicifolia, L . | W. Indies. |
| STIGMAPI | HYLLUM diversi- | |
| | folium, Tass. | W. Indies (Trinidad). |
| HETEROP | TERIS macrosta- | |
| | | W. Indies (Trinidad). |
| | ERYTHMON | IYLEÆ. |
| ENYTHRO | XILON avatum, Car | r.W. Indies (Trinidad). |
| ;; | Cora, — | Brazil, Peru. |
| | | |

OLACINE.E.

XIMENIA Americana, L.

W. Indies, Tropical Africa and India.

MELIOIDE.E.

MELIA somporvirens, L.

Tropics.

,, Azadarachta, L.

Tropics.

TRICHILIA hirta, L.

W. Indies (Trinidad), New Grenada.

PHOLACILIA Trinitens's, Grise, Trinidad.

,, diversifolia, Grise. Trinidad, Dominica.

MOSCHOXYLON Swartzii, Juss. W. Indies (Trinidad).

CARAPA Guianensis, Aubl.

Trinidad, Tropical South America, Senegambia.

Trinidad.

,, sp.
CEDRELA odorata, L.

W. Indies (Trinidad), Tropical South America.

SWEITENIA Mahogani, L. Honduras, Jamaica.

AURANTIACEÆ.

TRIPHRASIA trifoliata, DC. China.

LIMONIA acidissima, L.

India.

MURRYA exotica, L.

India, Ceylon.

BERGERA Kænigii, L.

South India, Ceylon.

COOKIA punctata, Retz.

China.

FERONIA elephantum, Corv.

India, Ceylon.

ÆGLE Marmelos, Corv.

India, Ceylon.

CITRUS decumana, L.

Moluccas.

,, Medica, L.

Asia.

,, limonum, L.

Asia.

,, ,, va

var. Brazilian Lemon.

| CITRU | IS limetta, $\it L$. | | Asia | 3. | |
|---------|-----------------------|---------------|--------|-----------|-------------|
| ,, | limetta vars | . St. Mich | aels. | | |
| ,, | ,, ,, | Bengal. | | | |
| ,, | ,, ,, | Persian. | | | |
| ,, | aurantium, | Riss. | Asia | ì. | |
| ,, | ,, vars | . Sweet Se | ville. | | |
| ,, | ,, ,, | Prolifie. | | | |
| ,, | ,, ,, | Navel. | | | |
| ,, | ,, ,, | Silver. | | | |
| ,, | ,, ,, | Maltese l | olood- | orange. | |
| ,, | nobilis, H. I | 2. | | | |
| ,, | ,, mino | or. | | | |
| ,, | hystrix, DC | | Indi | a. | |
| | Λ | MPELII | DEJ | Ε. | |
| CISSUS | S discolor, Blu | me. | Java | ı. | |
| ,, | quadrangula | | Cape | Good H | Iope. |
| ,, | sicyoides, L. | | W. | Indies | (Trinidad), |
| | | | T | ropical A | merica. |
| ,, | rhombifolia, | V_{\bullet} | Trin | idad. | |
| ,, | trifoliata, L. | | W. | Indies | (Trinidad), |
| | | | N | ew Grena | ada. |
| ,, | sp. | | Trin | idad. | |
| ,, | sp. | | Sing | apore. | |
| VITIS o | earibæa, DC. | | W. | Indies | (Trinidad), |
| | | | T_1 | opical A | merica. |
| ,, | vinifera, L. | | | _ | |
| ,, | ,, vars. | Muscadin | e. | | |
| " | ,, ,, | Black Ha | mbro. | | |
| ,, | ,, ,, | Muscat of | Alex | andria. | |
| LEEA c | occinea, | | India | ι. | |
| | - | | | | |

LEEA hirta. Banks. Bengal. Bengal. ., sanguinea, " sambucina, Wild. India.

> ., horrida, Sandwich Islands, India.

GERANIACEÆ.

PELARGONIUM cuspidatum, Ait. Cape Good Hope.

crithmifolium, Sm.

graveolens, Ait.

cucullatum, Ait. Cape Good Hope.

zonale, Ait. Cape Good Hope.

varieties.

,,

inquinans, Ait. Cape Good Hope.

., varieties.

OXALIDEE.

OXALIS Martiana, Lucc. Western Tropics.

corniculata, L. Tropical and most Tem-

perate Regions.

Panama to Brazil (Tri-Barrelierii, Jacq.

nidad).

pleuperifolia, Sandwich Islands.

India, China. Carambola, L. India, China. ,,

BALSAMINEÆ.

IMPATIENS latifolia, Hook. India.

AVERRHOA Bilimbi. L.

Balsaminia, Hort. India. ,,

TROPEOLE.E.

TROPEOLUM majus, L. Peru. TROPEOLUM sp.

Venezuela.

ZYGOPHYLLACE Æ.

ZYGOPHYLLUM sp.

Trinidad.

GUAIACUM officinale, L.

Cuba to Venezuela (Tri-nidad).

RUTE.E.

LEMONIA spectabilis, Lindl. India.

ESENBECKIA attenuata, Grise. Trinidad.

castanocarpa, Grise. Trinidad.

 ${\tt METRODOREA\ atropurpurea,}\ St.\ IIil.\ {\tt Brazil.}$

RUTA graveolens, L.

South Europe.

ZANTHOXYLACE.E.

ZANTHOXYLON clava-herculis, L. W. Indies (Trinidad).
" aromaticum, Wild. W. Indies (Trinidad).

SIMARUBEÆ.

SIMABA Cedron, Aubl.

New Grenada.

QUASSIA amara, L. f.

W. Indies (Trinidad), Guiana, Venezuela.

SPATHELIA simplex, L.

Jamaica.

OCHNACEÆ.

GOMPHIA nitida, Swartz.

W. Indies (Trinidad).

,, Guianensis, Rich.

Guiana, Trinidad.

OCHNA squarrosa, L.

South India, Ceylon.

, atropurpurea, Decsne.

Cape Good Hope.

AMYRIDEÆ.

BALSAMODENDRON corticosum, India.

| ICICA he | ptaphylla, Aubl. | W. Indies (Trinidad), |
|----------|------------------------|-------------------------------|
| | | Guiana. |
| BURSER. | A gummifera, L . | W. Indies (Trinidad), |
| | | Guiana. |
| HEDWIG | IA balsamifera, Sa | vartz. W. Indies (Trinidad), |
| | | Guiana. |
| CANARIT | UM commune, L. | Moluccas. |
| | balsamifera, L. | Jamaica, Trinidad, Ve- |
| | , | nezuela. |
| | maritima, Jacq. | Trinidad, Cuba. |
| | sylvatica, Jucq. | Tropies. |
| " | • • | ≜ |
| COMPACT | | EDIACEÆ. |
| | | vartz. St. Kitts, Antigua. |
| | UM obliquum, G | |
| MANGIF | ERA Indica, <i>L</i> . | $\mathbf{I}_{\mathrm{ndia}}.$ |
| " | ", vars. | Great Malda. |
| ,, | " | Small Malda. |
| ,, | ,, | Gordon. |
| ,, | ,, | Martinique. |
| ,, | ,, | Peters. |
| " | ,, | Strawberry. |
| | | Sierra Leone. |
| ANACAR | ,, DTTM occidentale | , L. Western Tropics. |
| | RPUS anacardium | · - |
| | | |
| SPUNDIA | S lutea, L. | Western Tropics. |
| " | purpurea, L. | |
| ,, | duleis, Forst. | Society Islands. |
| ,, | emarginata, | India. |
| " | sp. | Bengal. |
| | | |

LEGUMINOSÆ.

| | | 00411 | | |
|---------------|---------------------|---------------------------|------------------|----|
| CROTALARIA | A stipularis, Desv. | W. Ind | ies (Trinidad). | |
| ,, | retusa, L . | W. Ind | ies (Trinidad). | |
| HYMENOCAL | RPUS inebrians. | | | |
| INDIGOFERA | A violacea, | India. | | |
| ,, | hirsuta, L. | E. Indies, Naturalized in | | |
| | | Wes | tern Tropics. | |
| 99 | tinctora, L. | India. | • | |
| 2) | Anil, L. | India, | Naturalized | in |
| | • | Wes | tern Tropics. | |
| ?) | Saundersii, | South A | Africa. | |
| ,, | viscosa, L. | W. Ind | lies (Trinidad). | |
| TEPHROSIA | toxicaria, Pers. | Mexico | to Brazil. | |
| ,, | candida, D.C. | India. | | |
| SABINEA cari | nata, Grise. | W. Ind | lies (Trinidad). | |
| COURSETIA a | rborea, Grise. | W. Ind | ies (Trinidad). | |
| SESBANIA oc | cidentalis, Pers. | | ies (Trinidad). | |
| AGATI grandi | flora, Desv. | E. Indi | es. | |
| ,, coccine | a, Desv. | E. Indi | es. | |
| PISUM sativui | n, <i>L</i> . | S. Euro | ре. | |
| ARACHIS hyl | ogæa, L. | Tropics | - | |
| PICTETIA squ | | Brazil. | | |
| ZORNIA diphy | | Tropics | • | |
| | NE Braziliana, | | | |
| | | Wester | n Tropics. | |
| | | | | |

ASLYICARPUS vaginalis, P. C. E. Indies. LOUREA vespertilionis, Desv. India.

DESMODIUM gangeticum, DC. Tropical Asia.

sp.

Australia.

| DESMODIUM | latifolium, DC. | Tropical Asia. |
|--------------|---------------------------|---------------------------|
| | gyrans, DC . | Eastern Tropics. |
| " | gyroides, DC. | E. Indies. |
| ,, | | |
| ,, | • | Western Tropics. |
| " | triflorum, DC. | Western Tropics. |
| " | ascendens, DC . | Western Tropics. |
| ,, | axillare, DC . | Western Tropics. |
| " | scopiuris, Desv. | Western Tropics. |
| ,, | spirale, DC. | Western Tropics. |
| CLITORIA Te | rnatea, L . | Tropics. |
| " gl | ycinoides, DC. | Western Tropics. |
| ,, ar | borescens, Ait. | Trinidad, Guiana. |
| CENTROSEM. | A Plumieri, Benth. | Western Tropics. |
| ,, V | rirginianum, Benth. | Western Tropics. |
| | Braziliensis, | Trinidad, Brazil. |
| | Meæruleum, Benth. | Western Tropics. |
| GALACTIA fil | iformis, Benth. | Trinidad. |
| DIOCLEA viol | acea, Benth. | Trinidad, Guiana. |
| ,, Gu | ianensis, Lenth. | Trinidad, Guiana. |
| CANAVALIA | obtusifolia, DC. | Tropies. |
| ,, | altissima, DC. | Jamaica, Trinidad. |
| MUCUNA pru | riens, DC . | Tropies. |
| ,, alti | ssima, DC. | Western Tropics. |
| ,, ure | ns, DC . | Western Tropics. |
| ERYTHRINA | ${ m corrallodendron}, L$ | . Western Tropics. |
| | umbrosa, L. | W. Indies, Venezuela. |
| ,, | velutina, Wild. | Trinidad, Jamaica. |
| · · | ovalifolia, Roxb. | Ceylon. |
| | monosperma, Lam | . Java, Sandwich Islands. |
| • • | , | • |

North Africa. ERYTHRINA caffra, Thumb. herbacea, L.? BUTEA frondosa, Roxb. India, Ceylon. PHASEOLUS semierectus, L. Tropics. Tropics. lunatus, L. lasiocarpus, Mart. Trinidad, Trop. South ,, America. VIGNA luteola, Benth. Western Tropics. vexillata, Rich. Tropics. Tropics. DOLICHOS lablab, L. lignosus, L. Tropics. PACHYRRHIZUS angulatus, Rich. Tropics. CAJANUS Indicus, Spreng. India. ERIOSEMA violacea, Mey. Trinidad, Guiana. RHYNCHOSIA minima, DC. W. Indies (Trinidad). phasioloides, DC. W. Indies (Trinidad). FLEMINGIA strobolifera, R. Br. India. semialata, Roxb. India. ABRUS precatorius, L. Tropical Asia, W. Indies. HECASTOPHYLLUM Brownii,

Pers. Tropics.

,, monetaria, DC. Western Tropics.

PTEROCARPUS Rohrii, Mey. Western Tropics.
,, dalbergioides, Roxb. Adaman Islands.
,, Marsupium, Roxb. South India.

,, Draco, L. Trinidad, Trop. South America.

CENTROLOBIUM Parceanum, *Hill* Guiana, Trinidad. DREPANOCARPUSlunatus, *Mey.* Western Tropics.

MACHÆRIUM robinifolium, Vog. Western Tropics.

LONCHOCARPUS latifolius, Kunth. Western Tropics. sericeus, Kunth. Western Tropics. ,, violaceus, Kunth. Western Tropics. PLATYMISCIUM platystachyum, Benth Trinidad, Guiana. PISCIDIA erythrina, L. Western Tropics. ANDIRA inermis, Kunth. W. Tropics, Senegambia. Trinidad. Guiana, Venezuela. DIPTERYX odorata, Wild. Venezuela. sp. Tropies. SOPHORA tomentosa, L. ORMOSIA dasyearpa, Jacks. W. Indies. DIPLOTROPIS brachypetala, Ful. W. Indies, T. S. America. MYROSPERMUM frutescens, Jucq. Trinidad, Guiana. peruiferum, DC. Peru. HÆMATOXYLON Campeachia-

num, L. Yucatan, Jamaica. PARKINSONIA aculeata, L. W. Indies. POINCIANA regia, Boj. Madagascar. pulcherrima, L. Tropics. Gilliesii, Hook. Chili. COULTERIA Guianensis, Guiana. CÆSALPINIA Sappan, L. India. sepiaria, Roxb. India. paniculata, Desf. India. ,, paucijuga, Benth. Venezuela. ,, ferruginea, India.

LEBIDIBIA coriaria, Schlect. W. Indies, Tr. S. America.

COLVILLEA racemosa, Boj. Madagascar. CASSIA fistula, L. India, China. baccillaris, L. W. Indies (Trinidad). viminea L. W. Indies (Trinidad). grandis, L. W. Indies (Trinidad). spectabilis, DC. W. Indies, S. America. multijuga, R. W. Indies, Guiana. occidentalis, L. Tropics. glandulosa, Vogt. W. Indies (Trinidad). obtusifolia, L. Java. glauca, Lam. W. Indies (Trinidad). 2 2 patellaria, DC. Western Tropics. SWARTZIA grandiflora, Wild. Trinidad, Tr. S. America. pinnata, Wild. Trinidad, Guiana. Trinidad. BROWNEA Rosa, Berg. Trinidad, St. Vincent, Venezuela. latifolia, Jacq. Trinidad, Venezuela. grandiceps, Jacq. Venezuela. capitella, Jacq. Venezuela. 22 Venezuela. sp. AMHERSTIA nobilis, Wall. Burmah. JONESIA Asoca, Roxb. S. India, Ceylon, Java. minor, Zoll. Java. SCHOTTIA speciosa, Jacq. South Africa. EPERUA falcata, Aubl. Guiana. PARIVOA grandiflora, Aubl. Guiana.

Guiana.

Asia.

TACHIGALIA bijuga, Aubl.

TAMARINDUS Indicus, L.

VOUAPA bifolia, Aubl. Guiana. MACROLOBIUM multijugum, Venezuela. PELTOGYNE paniculata, Aubl. Guiana, Brazil. porphyrocardia, Grise. Trinidad, Guiana. HYMENÆA Courbaril, L. W. Indies, Tr. S. America. verrucosa, CASPAREA porrecta, Kunth. Jamaica, Trinidad. PHANERA purpurea, Benth. India, Ceylon, China. Vahlii, Benth. India. diphylla, Benth. Burmah. BAUHINIA variegata, L. E. Indies (Trinidad). megalandra, Grise. W. Indies, Venezuela. ungula, Jacq. W. Indies, Venezuela. Bredemeyeri, Vog. Venezuela, Trinidad. Trinidad. sp. auguina, Roxb. Malaba, Sylhet. Mexicana, Mexico, Venezuela. SCHNELLA excisa, Grise. Trinidad, Panama. PRIORIA copaifera, Grise. Trinidad, Jamaica. Trinidad, St. Vincent, COPAIFERA officinalis, Jacq. Venezuela. Trinidad. sp. Trinidad, Guiana, Vene-CRUDYA oblonga, Benth. zuela. CYNOMETRA cauliflora, L. S. India, Java, Sumatra. DETARIUM senegalense, Gmel. Venezuela.

MORA excelsa, Benth.

PENTACLETHRA filamentosa,

GLEDITCHIA sp.

Benth. W. Indies (Trinidad).

Ceylon.

Trinidad, Guiana.

PARKIA Africana, R. Br. E. Africa. ENTADA polystachya, DC. W. Indies (Trinidad), Trop. S. America. ADENANTHERA pavonina, L. India. NEPTUNIA plena, Benth. Western Tropics. oleracea, Lour. Tropics. DESMANTHUS virgatus, Wild. Tropics. MIMOSA pudica, L. Tropics. asperata, L. Tropics. St. Vincent, Trinidad. polydactyla, Humb. ceratonia, L. W. Indies (Trinidad). floribunda, Wild. Trinidad. Trinidad. SD. SCHRANKIA brachycarpa, Benth. Trinidad, Tr. S. America. LEUCÆNA glauca, Benth. Tropics. ACACIA Catechu, Wild. India. tortuosa, Wild. Tropics. Farnesiana, Wild. Tropics. ,, Arabica, Wild. India, Egypt & S. Africa. 9 9 leucophlæa, Wild. India, Burmah. Julibrissin, Wild. Asia. Lebbek, Wild, E. Tropics. cornigera, Wild. North Tropical America. 9 9 eburnea, Wild. India. ,, sarmentosa, Desv. Western Tropics. 9 9 Western Tropics. macracantha, H. B. Lophanta, Wild. Australia. leptophylla, DC. Brazil. ,, laurifolia, Wild. N. S. Wales.

cultriformis, A. Cunn.

S. Australia.

| CALI | HANDRA Portoricensis, L | Pent's Jamaica, Porto Rico. |
|------|--------------------------|-----------------------------|
| ,, | Creugerii, Grise | Trinidad, Venezuela. |
| ,, | tergemina, Benth | . W. Indies. |
| ,, | Guildingii, Benth. | St. Vimoent. |
| ,, | latifolia, Grise | Trinidad. |
| ,, | sp. | |
| ,, | sp. | Mexico. |
| ,, | Saman, Grise. | Caracas, Illearagua. |
| ENTE | ROLOBIUM cyclecorpum, | Grie. Jameira, Tempuela. |
| PITH | ECOLOBIUM ungulardi, | But M . Traples. |
| ,, | oblongum, Buth. | W. Inda (Trinidad), |
| | | Venous ia. |
| INGA | laurina, Wild. | W. In U.s (Trinidad). |
| ,, | heterophylla, Wild. | Gulana, Timidad. |
| ,, | setifera, Benth. | Trinital, Dayll. |
| ,, | vera, Wild. | W. Lelles [Heidah. |
| ,, | ingoides, WWA. | W. In U. Friedlich. |
| ,, | purpurea, E with. | W. In hes, Velezuela. |
| 73 | pulcherrima, Part. | Menier. |
| | MORINGA | CEE. |
| MORI | NGA pterygosperma, Gærtn | . Tropical Asia. |
| | ROSACE | LE. |
| ROSA | . mierophylla, Rox. | China. |
| ,, | | England. |
| ,, | centifolia mucosa, Scr. | South Europe. |
| ,, | Indica, L. | China. |
| ,, | ,, Archduke Cha | rles. |
| ,, | " Cramoisie Sur | érieure. |
|)) | ,, Fabvier. | |
| 79 | ,, Gonda. | |

| ROSA | Indica, L. | Lawrenceana. |
|------|------------|------------------------|
| ,, | 11 | L'Eblouissant. |
| ,, | ,, | Louis Philippe. |
| ,, | " | Mdme. Bosanquet. |
| " | ,, | President d'Olbeque. |
| " | ,, | Œillet. |
| " | " | Vicomtesse d'Aubergne. |
| 27 | " | Old China. |
| ,,, | ,, odor | atissima, Lindl. |
| " | ,, | Adam. |
| ,, | ,, | Aurora. |
| ,, | ,, | Adoration. |
| ,, | " | Blanche. |
| " | " | Bougere. |
| ,, | ,, | Boutin d'Or. |
| ,, | " | Caroline. |
| ,, | " | Clothilde. |
| 99 | " | Comte de Paris. |
| ,, | " | Comte Osmunde. |
| ,, | ,, | Devoniensis. |
| " | " | Eliza Sauvage. |
| ,, | ,, | Gloire de Dijon. |
| " | " | Isabella Sprunt. |
| 23 | ,, | Lais. |
| ,, | " | Larly of the Lake. |
| ,, | ,, | Modeste. |
| 5 9 | ,, | Mdme. Paul. |
| 33 | 11 | " William. |
| ,, | 19 | " Falcott. |
| | | Service . |

., Villermoz.

51 59

ROSA I. odoratissima, Lindl.

Mdme. Maurin.

- " " Pauline Labonte.
- ,, ,, Lacharme.
- " " Marechal Bugeaud.
- ,, ,, Niel.
- ,, ,, Narcisse.
- " Nephetos.
- " Odorata.
- ,, ,, President.
- ,, ,, Reine de Portugal.
- ,, ,, Souvenir d'un Ami.
- Sophrano.
- Smithii.
- ,, ,, Sombreuil.
- ,, ,, Triomphe de Luxembourg.
 - ,, Vicomtesse de Cazes.
- ,, ,, Bourboniana.
- ,, ,, Acidalie.
- , ,, Armosa.
- ,, ,, Catherine Guillot.
- ,, ,, Charles Duval.
- ,, ,, Comte Bobrinsky.
- ,, Dupetit Thouars.
- ,, ,, Edouard.
- ,, Gloire de Rosemenes.
- " Empress Eugénie.
- " " L'Avenir.
- ,, ,, La Reine Bourbon.
- " " Mdme. Bréon.
- ,, ,, Desprez-

ROSA I. Bourboniana.

| | | Modèle de Perfection. |
|------------|------------|---------------------------|
| " | ,, | Paul Joseph. |
| 22 | 93 | Princess Royal. |
| 2.2 | ,, | Prince Albert. |
| ,, | ,, | Prince Imperial |
| 2 2 | ,, | Souvenir de la Malmaison. |
| ,, | ** | Verace. |
| 27 | | settiana. |
| 2.2 | 2) | Amiće Vibert. |
| 22 | ; ; | Caroline Marniesse. |
| 2 2 | ; ; | Celine Forestier. |
| ., | ,, | Cloth of Gold. |
| 2.2 | ;; | Du Luxembourg. |
| 2.5 | . , | Fellenberg. |
| 2.7 | 3 7 | La Biche. |
| 2.7 | : 2 | Lamarque. |
| 2.2 | 2.9 | Mdme. Hassot. |
| 23 | : 1 | Miss Glegg. |
| 2.2 | 2.2 | Ophirie. |
| 2 2 | 5.5 | Foliaterre. |
| 2.2 | 5.1 | Triomphe de Rennes. |
| 22 | Ladlandice | |
| 9.9 | ,, | Abd-el-Kader. |
| 2.9 | ,, | Abraham Lincoln. |
| 2.2 | ;; | Achillo Conod. |
| 3 7 | ;; | Alex. Dumas. |
| 22 | 2.7 | Altred de Rougemont. |
|) 1 | 2, | André Loroy. |
| 11 | ٠, | included and ach. |
| 7.) | | d ' t. 200, |

ROSA P. perpetua. Augusta Mie.

| | | Augusto Rivière. |
|------------|-----|-------------------------|
| ,, | ,, | Earon Hallez. |
| 27 | " | Baronne de Rothchild. |
| " | " | |
| " | " | Baronue Prevest. |
| ,, | ,, | Beauty of Waltham. |
| ,, | ,, | Belle Normande. |
| ,, | ,, | Cardinal Patrizzi. |
| ,, | ,, | Caroline de Sansol. |
| ,, | ,, | Charles Lefevre. |
| 23 | 2,5 | Comte de Nanteuil. |
| ,, | ,, | Deuil de Prince Albert. |
| ,, | 2.3 | Dr. Andry. |
| 2.2 | ,, | Dr. Marx. |
| ,, | 2.3 | Duc de Cazes. |
| ,, | , , | Duchesse de Cambaceres. |
| ,, | ,, | Duchesse de Morney. |
| ,, | ,, | Duke of Wellington. |
| ,, | ,, | Empéreur de Moroc. |
| ,, | ,, | François Treyoe. |
|)) | ,, | Geant des Batailles. |
| ,, | ,, | Genl. Jacqueminot. |
| | " | Washington. |
| " | | George Paul. |
| " | " | Gloire de Montplaisir. |
| ; , | ,, | Jean Rosenkrantz. |
| " | " | Ipswich Jem. |
| ,, | " | - |
| 2.7 | " | J. G. Veitch. |
| ,, | " | Jules Margottin. |
| | 11 | La Brillanc. |

ROSA P. perpetua. La Reine.

| ", ", Lady Suffie | d. |
|-------------------|----|
|-------------------|----|

" ,, Leon des Combats.

" Lord Raglan.

,, ,, Louis Chaix.

" " Mrs. Ward.

,, ,, Mdme. Verschaffelt.

" " Mdme. Boll.

,, ,, Mdme. Campbell d'Islay.

" " Mdme. Wood.

", " Mdme. Clémence Joigneaux.

" " Mdme. Domage.

" " Mdme. Fillion.

,, ,, Mdme. Laffay.

,, ,, Mdme. Schmidt.

" " Mdme. Rivers.

,, ,, Mdme. Rival.

" " Mdme. V. Verdier.

", ", Mdme. Vidot.

" " " Mdlle. Peyronny.

" " " Mdlle. Jean Marie.

" " Maurice Bernardine.

,, ,, Mons. Boncenne.

" " Mons. Norman.

,, ,, Mon Plaisir.

,, ,, Oderic Vital.

,, ,, Ornement des Jardins.

,, ,, Pauline Lansezeur.

" ,, Pierre Notting.

", ", Tius Ninth.

| ROSA | P. | perpetua. | Prince | Noir. |
|------|----|-----------|-------------------------|-------|
| ,, | ,, | 1 | Princess | Alice |

Princess Marie of Cambridge.

Professor Koch. 22 9 9

Reine de Violettes. ,, 9 9

Senateur Vaise. 9.9

Sœur des Anges.

Souvenir de Leveson Gower.

Souvenir de la Reine d'Angleterre.

Souvenir de la Reine des Belges.

Thorin. ,, ,,

William Griffith.

William Jesse.

William Paul.

RUBUS Jamaicensis, Swartz. Jameira.

SD.

FRAGARIA vesca, var. L.

POTENTILLA sp.

SPIR.EA Reevesii-alba-plena. China.

CYDONIA sinensis, Tourne. ERIOBOTRYA Japonica, Lindl. Japan.

PYRUS malus, var. L.

AMYGDALUS Persica, L.

PRUNUS occidentalis, Swartz.

CHRYSOBALANUS Icaco, L.

HIRTELLA racemosa, Lam. Western Tropics.

53

Martinique.

Europe.

Sandwich Islands.

China.

Britain.

Persia.

Jamaica, Trinidad.

W. Indies (Trinidad), Tropical Africa & America.

pellocarpus, Mey. Trinidad, Guiana.

paniculata, Sw. W. Indies, Guiana.

triandra, Swartz. Cuba to Brazil, Trinidad.

LICANIA pyrifolia, Grise. Trinidad.

hypoleuca, Benth. Trinidad.

PARINARI campestre, Aubl. Guiana, Trinidad.

MYRTACEÆ.

BEAUFORTIA decussata, R.Br. N. Holland.

MELALEUCA Cajeputi, Herit. Amboyna.

EUCALYPTUS corymbosus, Herit. Australia.

Globulus, Labill. Australia.

METROSIDEROS vera, Rumph. India.

florida, Sm. New Zealand.

PUNICA Granatum, L. Asia Minor, North Africa.

,, var. flore pleno.

CAMPOMANESIA aromatica,

Grise. Trinidad, Venezuela.

MARLIERIA elliptica, Grise. Trinidad.

CALYPTRANTHES sericea, Grise. Trinidal.

PSIDIUM Guava, Radd.

Western Trovics. Cattlevanum, Sabine. China, Brazil.

polycarpum, Lam. Trinidad, Guiana, Brazil. ,,

Several improved varieties.

MYRCIA multiflora, DC.

Trinidad, Guiana.

splendens, DC.

Western Tropics.

MYRTUS communis, L.

South Europe.

mueronata.

aeris, W.A.

PIMENTA vulgaris, W.A.

Jamaica, Venezuela.

SYZYGIUM Jambolanum, DC. Java, India.

CARYOPHYLLUS aromaticus L. E. Indies.

JOSSINIA buxifolia, DC.

Mauritius.

W. Indies

EUGENIA Poirettii, DC. Trinidad, Hayti.

,, Surinamensis, Schat. Trinidad.

,, Gregii, DC. Dominica, Trinidad.

,, ligustrina, Wild. W. Indies.

,, sp. Trinidad.

,, rufescens, DC.

JAMBOSA Aquea, Rumph. E. Indies.

,, vulgaris, DC. E. Indies.

,, Malaccensis, DC. E. Indies.

BARRINGTONIACEÆ.

BARRINGTONIA speciosa, L. India, Ceylon, Java.

,, acutangula, Gart. Ceylon, Moluccas.

GUSTAVIA augusta, Z. Trinidad, Surinam, New Granada.

GRIAS cauliflora, L. Jamaica.

LECYTHIDACEÆ.

COURATARI sp. Trinidad, South America

LECYTHIS Idatimon, Aubl. Trinidad, Guiana.

minor, Jacq. Brazil.

,, lævifolia, Grise. Trinidad.

,, sp. Trinidad.

BERTHOLETIA excelsa, H.B. Brazil.

COUROUPITA Guianensis, Aubl. Trinidad, Guiana.

MELASTOMACEÆ.

LOREYA trinitensis, Creug. Jamaica, Trinidad.

MEDINILLA magnifica, Lindl. Formosa, Japan.

CYANOPHYLLUM magnificum, Brazil.

,,

CLIDENIA hirta. Don. W. Indies (Trinidad). spicata, DC. Western Tropics. ,, Creugeriana, Grise. Trinidad. latifolia, DC. W. Indies (Trinidad). rubra, Mart. Western Tropics. TSCHUDYA lanata, Grise. Trinidad, Dominica. rufescens, DC. Trinidad, Brazil. Trividad, America. HENRIETTA succosa, DC. DAVYA ciliata, DC. Trinidad. HETEROCENTRUM Mexicanum, Mexico. DIPLOCHITA parviflora, Benth. Trinidad. tomentosa, Grise. Trinidad, Brazil. CONOSTEGIA subhirsuta, DC. Western Tropics. MICONIA Peruviana, DC. Western Tropics. argyrophylla, DC. Western Tropics. holosericea. DC. Western Tropics. prasina, DC. Western Tropics.

LYTHRARIEÆ.

myriantha, Benth.

Western Tropics.

CUPHEA Trinitatis, DC. St. Vincent, Trinidad.

,, platycentra, Lindl. Brazil.

GRISLEA tomentosa, Rox. India.

,, sp. India.

LAWSONIA alba, Lam. Egypt, India.

LAFŒNSIA microphylla, Vaudl. Brazil.

LAGERSTRŒMIA regina, Rox. Ceylon, Malabar.

,, India, L India, Java.

ONAGRARIEÆ.

JUSSIÆA variabilis, Mey. Western Tropics.

JUSSIÆA suffruticosa, L.

hirta, Vaudl.

Tropics.

Western Tropics.

ŒNOTHERA procumbens, L. Brazil.

COMBRETACEÆ.

BUCIDA Buceras, L.

TERMINALIA Catappa, L.

W. In s (Trinidad).

Asia, Africa, Naturaliz-

Belerica, Rox.

India, Ceylon. Mauritiana, discolor. Mauritius.

,, Fatræa, DC.

laurina.

sp.

Trinidad.

PENTAPTERA coriacea, Rox.

CHUNCOA obovata, Poir. sp.

CONOCARPUS erectus, L.

COMBRETUM laxum, Lafl.

eriopetalum, Don.

CACOUCIA coccinea, Aubl. POIVREA coccinea, DC.

QUISQUALIS Indica, L.

South Europe, Tropical

ed in Western Tropics.

Madagascar.

Mauritius.

South India.

W. Indies (Triuidad).

Trinidad.

W. Indies (Trinidad).

LAGUNCULARIA racemosa, G. Western Tropics, Africa.

Trinidad, America.

West Indies.

Trinidad, Guiana.

Madagascar.

South India, Pegu, Ma-

lay Islands.

RHIZOPHORACEÆ.

Tropical Sea Shores. RHIZOPHORA Mangle, L. CASSIPOUREA elliptica, Poir. Western Tropics.

Guianensis, Aubl. Trinidad, S. America.

CRASSULACEÆ.

CRASSULA arborescens, Wild. Cape G. Hope. BRYOPHYLLUM calycinum, Salis. Tropics. ECHEVERIA sp.

Mexico.

PAPAYACEÆ.

CARICA Papaya, L.

Tropical South America.

sp.

PASSIFLORACEÆ.

RYANIA speciosa, Vahl.

Trinidad, Guiana. Sierra Leone.

SMEATHMANNIA lævigata, PASSIFLORA alata, Ait.

W. Indies, Trinidad.

South America. cærulea racemosa,

Impératrice Eugénie. 9 9

quadrangularis, L. Jamaica. 9 9

gracilis, Link. Jamaica.

tetragona, Cape G. Hope.

Trinidad, America. laurifolia, L.

W. Indies, (Trinidad), biflora, Lam.

Venezuela.

suberosa, L. Trinidad, Jamaica.

Western Tropics. fætida, L.

sp.

hederacea, Car. W. Indies (Trinidad).

ciliata, Ait. Jamaica, Bahamas.

serrata, L. Trinidad, Dominica, Martinique.

Trinidad, Guiana. TACSONIA sanguinea, DC.

BELVISIACEÆ.

NAPOLEONA Imperialis, Palis. Sierra Leone.

CACTACEÆ

| CACTACEZE. | | | | |
|---|-----------------------|-------------------------|--|--|
| MAMILLARIA angularis, | | Tropical America. | | |
| ,, | polyhedra, | Mexico. | | |
| ,, | simplex, Haw . | Jamaica, Venezuela. | | |
| MELOCACTUS communis, L. | | Mexico, W. Indies, Cen- | | |
| | | tral America. | | |
| ECHINOPSIS multiplex, Pf. et Ott. Brazil. | | | | |
| ,, | Eyriesii, Pf. et Ott. | Buenos Ayres. | | |
| CEREUS | albispinus, S. Dyck. | Tropical America. | | |
| ,, | repandus, Haw. | W. Indies (Trinidad). | | |
| ,, | gemmatus, Zucc. | Mexico. | | |
| ,, | tetragonus, Haw. | Tropical America. | | |
| ,, | serpentinus, Lag. | Tropical America. | | |
| ,, | variabilis, Pf. | Tropical America. | | |
| ,, | grandiflorus, Mill. | Jamaica, Trinidad. | | |
| ,,, | triangularis, Har. | Jamaica, Trinidad. | | |
| ,, | tortuosus, Forbes. | Buenos Ayres. | | |
| ,, | Mc Donaldeæ, Hook. | Honduras. | | |
| ,, | Peruvianus, Tabern. | Peru, Central America. | | |
| ,, | strigosus, | Mexico. | | |
| ,, | flagelliformis, Mill. | Western Tropics. | | |
| ,, | strictus, DC. | Western Tropics. | | |
| " | Curtisii, Otto. | Tropical America. | | |
| RHIPSALIS pentaptera, Pf. | | Brazil. | | |
| ,, | funalis, Salm. | W. Indies (Trinidad). | | |
| ,, | Cassytha, Gart. | Tropical America. | | |
| OPUNTIA Tuna, Mill. | | Tropical America. | | |
| ,, | Ficus-indica, Mill. | Jamaica. | | |
| ,, | coccinellifera, Mill | Mexico. | | |
| 22 | cylindrica, Juss. | Mexico. | | |
| | | | | |

| OPUNTIA vulga | aris, <i>Haw</i> . | South Europe. | | |
|--|--------------------|----------------------------|--|--|
| ,, ferox | , Haw. | Mexico. | | |
| ,, nigri | cans, Haw. | Mexico. | | |
| " strict | a, Haw. | Brazil. | | |
| ,, decur | mana, <i>Haw</i> . | Brazil. | | |
| PEIRESCIA aculeata, Mill. | | Western Tropics. | | |
| " sub | oulata, Muhl. | | | |
| " Ble | eo, DC. | New Grenada. | | |
| ,, sp. | | W. Indies. | | |
| PHYLLACACTUS latifrons, (?) | | Tropical America. | | |
| " phyl | llanthoides, (?) | Brazil. | | |
| CUCURBITACEÆ. | | | | |
| FUEILLIA cordi | ifolia, Swartz. | Jamaica, Trinidad, Guiana. | | |
| MELOTHRIA pervaga, Grise. | | Western Tropics. | | |
| CERATOSANTHES tuberosa, Spreng. West Indies. | | | | |
| ANGURIA umbr | cosa, Kunth. | Trinidad, Venezuela. | | |
| ,, trilob | ata, Wild. | Trinidad, Venezuela. | | |
| ,, trifoli | iata, L . | West Indies (Trinidad). | | |
| ,, sp. | | Trinidad. | | |
| MOMORDICA Charantia, L. | | Tropics. | | |
| ,, Balsa | mina, L. | Tropics. | | |
| LUFFA acutangula, Rox. | | Tropies. | | |
| LAGENARIA vulgaris, Ser. | | Tropics. | | |
| CUCURBITA Me | elopepo, L . | Levant. | | |
| ,, Pe | po, L . | Levant. | | |
| | rullus, L . | S. Europe. | | |
| ,, ovi | ifera, L . | Astracan. | | |
| ,, vei | rrucosa, L . | Levant. | | |
| | | | | |

CUCUMIS sativus, L. Asia.

,, Anguria, L. W. Indies (Trinidad).

,, Melo, L. Asia.

moschata, Duch.

anguinus, L. E. Indies.

TRICHOSANTHES anguina, W. Indies, South America. CIONANDRA racemosa, *Grise.* Hayti to Brazil, Trinidad. SECHIUM edule, *Swartz.* Jamaica.

CELASTRINEÆ.

EUONYMOS Japonicus variegatus, Thumb. Japan.

", aureo-variegatus,

CATHA edulis, Forst. South Africa.

CELASTRUS serratus (?) Japan.

,, stylosus, Wild. Himalaya.

ELÆODENDRON orientale, Jacq. Mauritius.

ILEX Europea variegata, Europe.

" latifolia, Japan.

, Paraguayensis, Lam. Paraguay.

,, sp. Japan.

,, foveata, Japan.

,, cornuta, Japan.

,, Macoucoua, Pers. Western Tropics.

RHAMNACEÆ.

ZIZYPHUS Lotus, Lam. Arabia, South Europe.

,, rugosus, Lam. India.

RHAMNUS utilis, Decsne China, Japan. COLUBRINA Asiatica, Brong. India, Ceylon.

reclinata, Brong. W. Indies (Trinidad).

HMBELLIFERÆ.

HYDROCOTYLE umbellata L. W. Indies (Trinidad).

SPINANTHE paniculata, Jacq. W. Indies (Trinidad).

ERYNGIUM fœtidum, L. W. Indies (Trinidad).

PETROSELINUM sativum, Hoffm. Europe.

HELOSCIADUM leptophyllum, DC. W. Indies (Trinidad).

DAUCUS Carota, L.

Europe.

ARACACHA esculenta, DC. W. Indies.

CORIANDRUM sativum, L.

Europe.

ANETHUM Fœniculum, L.

Britain.

ARALIACEÆ.

PANAX Morototoni, Aubl. Trinidad, Guiana, Brazil.

cochleatum, DC.

Java, Amboina.

SCIADOPHYLLUM capitatum, Grise. W.Indies(Trinidad), Venezuela.

TUPIDANTHUS calyptratus, Hook f. Khasia.

ARALIA Duncanii,

Mauritius.

CORNACE Æ.

AUCUBA Japonica, Thumb. Japan.

> variegata, Japan. ,, ,,

RUBIACEÆ.

India, Ceylon, Java. MUSSÆNDA frondosa, L.

tenuiflora, Benth. West Africa.

luteola, Delil. West Africa.

POSOQUERIA longiflora, Tropical America. OXYANTHUS Natalensis, II.K. Natal. GENIPA Caruto, Kunth. Trinidad, St. Vincent. Americana, L. Indies (Trinidad), Guiana. GARDENIA florida, L. China, Japan. lucida, Rox. India. macrocarpa, Cav. India. ,, Thunbergii, L.f. Cape G. Hopc. ,, radicans, Thunb. China. ,, Fortunei, Lindl. China. China. Plantii, Lindl. Stanleyana, Hook. Sierra Leone. RHODOSTOMA gardenioides, Schir. RANDIA longiflora, Lam. India. minor. W. Indies (Trinidad). aculeata, L. W. Indies (Trinidad). Mussænda, DC. Western Tropics. armata, DC. Trinidad, St. Lucia, New Grenada. COCCOCYPSELUM repens, Swartz. Trinidad, Guiana. mumularifolia, Chamb. Trinidad, Guiana. HIGGINSIA regalis, New Grenada. porphyrophylla, Brazil. refulgens, Brazil. COUTAREA speciosa, Aubl. Western Tropics. HYMENODICTYON thyrsiflerum, Well. India. NAUCLEA undulata, Rox. Moluceas.

Western Tropics.

Trinidad, Jamaica.

MANETTIA coccinea,

CHIMARRHIS cymosa, Jacq.

PORTLANDIA grandiflora, L. Jamaica. coccinea, Swartz. Jamaica. Jamaica, Hayti. RONDELETIA speciosa, Lodd. minor. PENTAS carnea. Benth. Brazil. Brazil. rosea, GONZALEA spicata, DC. Western Tropics. Potesia, Grise. Trinidad, Jamaica. ISERTIA parviflora, Vahl. Trinidad, Guiana. SABICEA hirsuta, Wild. W. Indies (Trinidad). Guiana. Western Tropics. HAMELIA patens, Jacq. lutea, Rohr. Western Tropics. latifolia, Rochb. Western Tropics. VANGUERIA edulis, Vahl. Madagascar .. spinosa, Roxb. Bengal. ,, MORINDA Royoe, L. Jamaica, Trinidad. citrifolia, L. India. CHIOCOCCA racemosa, Jacq. Western Tropics. pavifolia, Wullsch. Western Tropics. MALANEA macrophylla, Benth. Trinidad, St. Vincent. IXORA coccinea, L. India. superba, Bandhuca, Roxb. Central & West India. rosea, Wall. Khasia Hills.

India, Ceylon.

Madagascar.

Java, Borneo.

Java.

China.

acuminata, Rox.

longiflora, Rich.

Javanica, DC.

salicifolia, DC.

crocata, Lindl.

| TOTAL! Id. | T 1' | | | |
|--|---------------------------|--|--|--|
| IXORA liniflora, | India. | | | |
| , alba, Roxb. | India. | | | |
| ,, affinis | India. | | | |
| ,, Amboynensis, DC . | Amboyna. | | | |
| ,, Griffithii, | Singapore. | | | |
| ,, Lobbii, | Java, Borneo. | | | |
| ,, undulata, Rox. | Bengal. | | | |
| ,, lanceolaria, | Java, Borneo. | | | |
| PAVETTA Borbonica, L. | Bourbon. | | | |
| ,, angostifolia, Thwaites. Ceylon. | | | | |
| ,, Caffra, Thunb. | South Africa. | | | |
| SIDERODENDRON triflorum, Vahl. W. Indies (Trinidad). | | | | |
| FARAMEA vaginata, Grise. | W. Indies (Trinidad), | | | |
| | Guiana. | | | |
| COFFEÆ Arabica, L. | Mountains of Arabia. | | | |
| ,, ,, Moka, | | | | |
| " Bengalensis, Rox. | India. | | | |
| ,, laurina, Leroy. | Africa. | | | |
| RUDGEA Hostmaniana, Benth. | Trinidad, Guiana. | | | |
| PSYCHOTRIA brachiata, Swartz. West Indies. | | | | |
| ,, areuata, Benth. | Trinidad, Guiana. | | | |
| ,, cornigera, Benth. | Trinidad, Guiana. | | | |
| PALICOUREA Mexicana, Benth. Western Tropics. | | | | |
| ,, crocea, DC . | Western Tropics. | | | |
| ,, triphylla, DC. | Western Tropics. | | | |
| CEPHÆLIS Ipecacuanha, L. | Brazil. | | | |
| ,, tomentosa, Swartz. | Western Tropics. | | | |
| ,, Swartzii, DC. | Western Tropics. | | | |
| RICHARDSONIA scabra, L. | Western Tropics. | | | |
| DIODIA sarmentosa, Swartz. | Trinidad, Guiana, Brazil. | | | |

SPERMACOCE tenuior, Lamb. Trinidad, Guiana.

BORERA lævis, Grise. W. Indies (Trinidad).

,, podocephala, DC. Western Tropics.

Perotetii, Benth. Western Tropics.

parviflora, Benth. Western Tropics.

SERISSA fætida, Comm. Japan.

AMAIOUA Guianensis, Seeman. Trinidad, Panama, Brazil.

CAPRIFOLIACEÆ.

LONICERA Japonica, Desv. Japan.

VIBURNUM tinus, L. South Europe.

" " lucidum,

", variegatum,

SAMBUCUS nigra, L. Europe.

DIPSACACEÆ.

SCABIOSA atropurpurea, L. Sauth Europe.

COMPOSITÆ.

OLIGANTHES condensata, Schultz. Trinidad, Guiana.

VERNONIA divaricata, Swartz. Western Tropics.

" arborescens, Swartz. Cuba, Nicaragua.

CENTRATHERUM muticum, Less. Trinidad, Venezuela. MONANTHEMUM Crugerii.

Gries. Trinidad.

ELEPHANTOPUS scaber, L. Louisiana to Brazil.

,, mollis, L. Western Tropics.

DISTREPUS spicatus, Cass. Western Tropics.

ROLANDRA argentea, Rott. W. Indies (Trinidad)
Brazil.

HEBECLINIUM macrophyllum, DC. Brazil.

ianthium, Hook. Brazil.

BRICKELIA diffusa, A. Gray. Western Tropics. Western Tropics. PECTIS elongata, H. B. K. AGERATUM conyzoides, L. Tropies. muticum, Griesb. Cuba to Peru. Mexicanum, Wild. Mexico. ,, Western Tropics. CRITONIA Dalea, DC. parviflora, DC. Western Tropics. Mexico (W. Indics) Tri-CALEA solidaginea, Kunth. nidad. W. Indies (Trinidad). ECLIPTA erecta, L. EUPATORIUM lævigatum, Lamb. Trinidad, Panama. Trinidad, Guiana. odoratum, L. Cuba, Trinidad.; conyzoides, Vahl. ,, paniculatum, Schreb. W. Indies (Trinidad) MIKANIA scaber, DC. Trinidad, Guiana. glechomofolia, Schreb. Trininad, Guiana. Trinidad, Guiana. scandens, Wild. ,, umbellifera, Hook. Guiana, Trinidad. Cuba, Trinidad, Brazil. Orinocensis, Kunth. Mexico to Brazil (Trinidad) CLIBADIUM asperum, DC. DAHLIA variabilis, Desf. Mexico. PARTHENIUM hysterophorus, L. Cuba to Patagonia.] Canada to Brazil. AMBROSIA artemisifolia, L. Mexico, New Grenada, St. ZINNIA elegans, Jacq. Vincent. Trinidad, Venezuela. WEDELIA Caracasana, DC. California, Mexico. COREOPSIS hirta, Hook. Drummondii, T. & Gr. California, Mexico. BIDENS bipinnatus, L. Tropics.

leucantha, Wild.

Western Tropics.

COSMOS caudatus, Kunth. Western Tropics.

,, sulphurea, Cav. Trinidad, Venezuela.

SYNEDRELLA nodiflora, Gries. Western Tropics.

CHRYSANTHELLUM procumbens, Rich. Tropics.

CLEMENOCOMA montana, Cass. Peru.

POROPHYLLUM ruderale, Cass. Mexico to Buenos Ayres.

GAILLARDIA picta, Don. California.

CHRYSANTHEMUM Indicum, DC. China.

GNAPHALIUM lanuginosum, H.B. Brazil.

,, Americanum, Mill. W. Indies (Trinidad).

NEUROLENA lobata, R. Br. CubatoEcuador(Trinidad) ERECHTITES heracleifolia, Raf. U. States to Buenos Ayres.

LACTUCA sativa, L. Europe.

SONCHUS oleraceus. L. All Countries.

GOODIACEÆ.

SCEVOLA Lobelia, L.

Seashores of Tropical Asia, Madagascar, and Pacific Islands.

LOBELIACEÆ.

LOBELIA cardinalis, L.

Virginia.

" Trinitensis, Gries. Trinidad.

CENTROPOGON Surinamensis, Presl. Trinidad, Guiana.

, lueyanum, Brazil.

PONGATIEÆ.

PONGATIUM Indieum, Lam. Tropies.

ERICACEÆ.

CALLUNA vulgaris, Salis.

Europe.

ARBUTUS Unedo, Tourne.

South Europe.

 $\Delta Z \Delta L I \Delta$ Indica, L.

India, China.

RHODODENDRON Japonicum, Japan.

OLEACEÆ.

OLEA Europea, L. Levant, Persia.

OSMANTHUS ilicifolius, Thunb. Japan.

,, vareigatus, Japan.

NORONHIA emarginata, Poir. Madagasear.

LIGUSTRUM Japonicum, Thunb. Japan.

JASMINE.E.

JASMINUM Sambac, L. India, Arabia.

,, flore plene,

,, undulatum, Wall. India.

,, gracile, Andre. Asia.

., ligustrifolium, Wall. Malabar.

,, officinale, L. Pacific Islands.

" fruticans, L. South Europe.

NYCTANTHES Arbor-tristis, Juss. India, Ceylon. FONTANESIA Fortunei, China.

PLANTAGINEÆ.

PLANTAGO lanceolata, L. Europe.

PLUMBAGINACEÆ.

PLUMBAGO Capensis, Thunb. Cape G. Hope.

,, rosea, L. Moluccas.

,, scandens, L. Western Tropics.

SALVADORACEÆ.

SALVADOREA Persica, L. Persia, Palestine. MONETIA barlerioides, L'Her. India.

MYRSINEÆ.

MYRSINE leta, L. Western Tropics.

ARDISIA decipiens, DC. Trinidad, Panama.

, crenulata, Vent. Mexico.

,, acuminata, Wild. W. Indies (Trinidad) Venezuela.

, Wallichii, India.

,, sp. ex Calcutta.

JACQUINIA ruscifolia, Jacq. Tropical America.

,, armillaris, L. W. Indies (Trinidad).

, sp. Mexico.

THEOPHRASTA Jussiee, Lindl. Hispania.

,, regalis, Brazil.

" latifolia, Brazil.

CLAVIJA ornata, Don. Trinidad, Guiana.

" undulata, Brazil.

EBENACEÆ.

DIOSPYROS discolor, Wild. Philippines.

,, tetrasperma, Swartz. Trinidad, Panama.

,, sp. Trinidad.

ebenum, Retz. Sumatra, Moluccas.

STYRAX sp. Trinidad.

SAPOTACEÆ.

CHRYSOPHYLLUM albidum, South America.

,, Caimito, Wild. W. Indies (Trinidad).

,, glabrum, Jaeq. W. Indies (Trinidad)

Guiana.

,, oliviforme L. W. Indies.

POUTERIA Guianonsis, Aubl. Trinidad, Guiana.
LUCUMA oboyata Tropical South America.

LUCUMA multiflora, DC. Jamaica, Trinklad. ,, deliciosa, Guiana, Trinidad

SAPOTA Achras. Mill. Western Tropics.

SIDEROXYLON Mastichodendron, Jacq. Trinidad, Tropical America.

BASSIA longifolia, L. India, Ceylon. Trinidad, Venezuela, Gui-MIMUSOPS globosa, Crist. ana.

> Trinidad. SD.

Elengi, L. India.

eyanocarpa, L. India.

LOGANACELE.

SPIGELIA Anthelmintica, L. W. Indies.

STRYCHNOS potatorum, Itor. India.

Nux-vomica, L. India.

FAGRIEA obovata, Wolf. India, Caylon.

,, Zeylanica, Thanb. Ceylon.

GENTIANACEÆ.

SCHULTZIA stenophylla, Mart. Tropic d. America, Tilridad.

ERYTHREA ramosissima, Pars. West an Tropics.

LASIANTHUS alatus, Aubl. Western Tropics.

TACHIADENUS carinatus.

LIMNANTHEMUM Humboltia-

num, Grise. Mexico to Brazil.

SLEVOGTIA occidentalis, Grise. W. Indies (Trinidad).

APOCYNACE.E.

ALLAMANDA cathartica, L. Tropical America, Trinidad.

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ALLAMANDA Schotti, Pohl.
                                Rio Janeiro.
                violacea.
                                Brazil.
CARISSA Carandas, L.
                                India, Ceylon, China.
          Arduina, Lam.
                                Cape G. Hope.
RAUWOLFIA canescens, L.
                                W. Indies.
               heterophylla, R. et Schultz.
THEVETIA neriiformis, Juss.
                                W. Indies (Trinidad).
KOPSIA fruticosa, DC.
                                Burmah, Tavoy.
TANGHINIA venifera, Poir.
                                Madagascar.
ROUPELLIA grata, Wall.
                                Sierra Leone.
TABERNAMONTANA corona-
                     ria, R. Br. Tropical Asia, C. G. Hope.
            laurifolia, L.
                                Trinidad, Jamaica.
            undulata, Vahl.
                                W. Indies (Trinidad).
    ,,
            jasminoides,
                                Cape G. Hope.
    3.9
            psychotrifolia, Kunth. Trinidad, Venezuela.
            capensis,
                                Cape G. Hope.
                                Trinidad, Venezuela.
            SD.
                                Mexico, W. Indies (Tri-
            citrifolia, Jacq.
    ,,
                                  nidad).
DIPLADENIA Harrisii, Illook.
                                Guiana, Venezuela, Tri-
                                  nidad.
                amabile,
                                Brazil.
    ,,
               urophylla,
                                Brazil.
    ,,
                                Western Tropics.
VINCA rosea, L.
              alba,
PLUMIERIA alba, L.
                                W. Indies.
              rubra, \mathcal{L}.
                                Western Tropics.
                                Bahamas, St. Thomas.
              obtusa, L.
BEAUMONTIA grandiflora, Wall. E. Indies.
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WRIGHTIA mollissima, Wall. Tropical Himalayas.

ALSTONIA scholaris, R. Br. India.

NERIUM Oleander, Lour. Palestine, India.

,, ,, album,

HUNTERIA corymbosa, Roxb. Penang.

RHYNCHOSPERMUM jasminoides, Japan.

VALLARIS dichotoma, Wall. Bengal.

AGANOSMA caryophyllata, Don. India.

ECHITES symphytocarpa, Mey. Trinidad, Guiana, Brazil.

,, subsagittata, Ruiz et Par. Western Tropics.

HEMYDICTYON venosum, Lindl. Western Tropics.

FORSTERONIA corymbosa, Mey. Tropical South America.

ASCLEPIADEÆ.

CRYPTOSTIGIA grandiflora,

R Br. Beliar.

CALOTROPIS gigantea, R. Br. India, Ceylon.

,, procera, R. Rr. India, Ceylon, N. Africa.

ASCLEPIAS curassavica, L. W. Indies.

SCHUBERTIA graveolens, Lindl. Brazil.

MARSDENIA maculata, Hook. Trinidad, Panama, New Grenada.

PERGULARIA odoratissima, R.Br. India, Java, Timor-STEPHANOTIS floribunda, Brong. Madagasear.

HOYA carnosa, R. Br. Burmah.

", ", variegata,

,, longifolia, Borneo.

,, bella, *Hook*. China.

, imperialis, Lindl. Borneo.

HOYA fraterna, Su

Sumatra.

CENTROSTEMMA multiflora, Decne. Java.

CEROPEGIA Gardnerii, Thwaites. Ceylon.

GONOLOBUS rostratus, R. Br. Trinidad, Venezuela.

,, pubesceus, Grise. Trinidad, Jamaica.

FISCHERIA multiflora, Decne. Trinidad.

POLEMONIACEÆ.

PHLOX Drummondii, Hook. Texas.

HYDROPHYLLACEÆ.

HYDROLEA spinosa, L. Mexico to Brazil (Trinidad)

WIGANDIA Caracasana, Hook. Caracas.

CONVOLVULACEÆ.

EVOLVULUS alsinoides, L. W. Indies (Trinidad). CONVOLVULUS violaceus, Vahl. Western Tropics.

,, pentanthus, Jacq. Western Tropics.

,, micranthus, R.S. Western Tropics.

JACQUEMONTIA tamnifolia, Grise. Western Tropics.

IPOMEA bona-nox, L. Tropics.

,, pterodes, Chois. Trinidad, Panama to Brazil.

,, dissecta, Pursh. Tropics.

,, pentaphylla, Jacq. Tropics.

,, glabra, Chois. Western Tropics.

,, Datatas, Lam. Tropies.

,, a & b, Grise.

,, digitata, L. Tropics.

,, umbellata, Mey. Tropical Afriça & America.

,, pes-capræ, Swartz. Tropies.

| 270250 | 777 / M | | |
|------------------------------|-----------------------------|--|--|
| APOMEA quamoclit, L. | Western Tropics. | | |
| ,, coccinea, L . | Tropics. | | |
| ,, nil, | Tropics. | | |
| ,, tuberosa, L . | Tropics. | | |
| ,, arborescens, | Martinique (?). | | |
| ,, murucoides, | Martinique (?). | | |
| ,, alatipes, Hook. | Trinidad. | | |
| ARGYRIEA splendens, Swartz. | India, Ceylon. | | |
| ,, Colieri, | India. | | |
| PORANA paniculata, .Roxb. | Southern India, Ceylon. | | |
| SOLANACEÆ. | | | |
| CESTRUM fœtidissimum, Jacq. | W. Indies (Trinidad). | | |
| SOLANUM nodiflorum, Jacq. | Tropics. | | |
| ,, Seaforthianum, Andr | . W. Indies (Trinidad). | | |
| ,, triste, Jacq. | Western Tropics. | | |
| ,, Radula, Vahl. | Western Tropics. | | |
| ,, Juripeba, Rick. | Western Tropics. | | |
| ,, stramonifolium, Jacq | . Western Tropics. | | |
| ,, mammosum, L. | Western Tropics. | | |
| ,, aculeatissimum, Jacq | . Western Tropics. | | |
| SOLANUM Melongena, L. | Tropical Asia. | | |
| CAPSICUM frutescens, L. | India, Tropical America. | | |
| ,, arboreum, | India. | | |
| ,, annum, L. | South America. | | |
| SOLANDRA grandiflora, Swartz | Mexico to Brazil (Trinidad) | | |
| MARCKIA longiflora, Mrs. | Trinidad. | | |
| BRUGMANSIA arborea, Wild. | Tropical South America. | | |
| ,, suaveolens, Wild | | | |
| NICOTIANA Tobacum, L . | | | |

" var, Shiraj, Persia.

,,

NICOTIANA Tobacum var. Latakia, Lebanon.

,, glauca, L. Buenos Ayies.

ACNISTUS arborescens, Schlet. W. Indies (Trinidad).

PETUNIA nyctaginiflora, Juss. South America.

,, violacea, L. Buenos Ayres.

PHYSALIS minima, L. Tropics.

CORDIACEÆ.

CORDIA gerascanthus, Jacq. Trinidad, Venezuela.

,, alba, R. S. Western Tropics.

,, Sebestana, Jacq. W. Indies (Trinidad),
Guiana, New Grenada.

, Collococca, L. Western Tropics.

,, macrophylla, Mill. Jamaica, Trinidad.

,, sulcata, DC. W. Indies (Trinidad),
Guiana.

speciosa, Wild. W. Indies.

,, Myxa, L. South India, Ceylon.

,, cylindrostachya, R.S. California to Uraguay.

BORAGINEÆ.

TOURNEFORTIA hirsutissima, L. Western Tropics.

,, bicolor, Swartz. Western Tropics.

,, laurifolia, Vent. Western Tropics.

,, Caribæa, Grise. Trinidad, Dominica.

,, tomentosa, Mill. W. Indies (Trinidad).

HELIOTROPIUM Indicum, L. Tropics.

,, parviflorum, L. Western Tropics.

,, Peruvianum, L. Andes.

,, inundatum, Swartz. Western Tropics.

CYNOGLOSSUM pictum, L.

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MYOSOTIS Azorica,

Madeira.
Azores.

LABIATEÆ.

OCIMUM Basilicum, L.

Tropical Asia and Africa.

COLEUS Amboinicus, Lour.

Amboyna.

,, Verschafelti,

Java.

Blumei, Benth.

Java.

,, ,, nigricans.

MARSYPIANTHES hyptoides, Mart. W. Indies (Trinidad).

IIYPTIS brevipes, Poit.

Tropics.

,, spicata, Poit.

Western Tropics.

Mexico to Brazil.

" capitata, Jacq.

Europe.

MENTHA veridis, L.

,, crispa,

Britain.

,, aquatica, SALVIA splendens, Sell.

Rio Janeiro.

,, coccinea, L.

Florida to Brazil.

" serotina, L.

W. Indies (Trinidad).

., pratensis.

, lamiifolia, Jacq.

W. Indies (Trinidad).

ROSMARINUS officinalis, L. THYMUS vulgaris, L.

South Europe. South Europe.

LEONURUS Sibericus, L.

Tropical, and most temperate Countries.

LEONITIS nepetæfolia, R. Br. Tropics.

 ${\bf SCUTELLARIA\, purpurascens}, \textit{Swartz}. \ {\bf W.\, Indies} \ ({\bf Trinidad}).$

,, Ventenantii, S

Sta. Martha.

,, Costaricensis,

Costa Rica.

" Mexicana,

Mexico.

TEUCRIUM Cubense, L. var. Trinidad.

POGOSTEMON Patchouli, Pell. India.

Ellisia, Jaca.

PETREA volubile, Jacq.

erecta,

VERBENACEÆ.

VERBENA radicans, var. Chili. Tweediana, Chili. Venosa, Buenos Ayres. PRIVA echinata, Juss. Brazil. STACHYTARPHA Jamaicensis, Valid. W. Indies (Trinidad). strigosa, Vahl. Trinidad, Antigua. mutabilis, Vahl. W. Indies (Trinidad), " Guiana. LIPPIA betulifolia, Kunth. Trinidad, Tropical South America. Western Tropics. gemminata, Kunth. W. Indies (Trinidad), Tro-LANTANA camara, L. pical South America. Cuba, Jamaica. reticulata, Pers. Sellowiana, Monte Video. Trinidad, Jamaica, Painvoluerata, L. nama. CITHAREXYLON quadrangulare, Jacq. Western Tropics. cinercum, L. Jamaica, Cuba, Trinidad. DURANTA Plumieri, Jacq. W. Indies, Tropical South America. stenostachys, Hort. Bot. Martinique.

Venezuela, Trinidad.

W. Indies, Venezuela.

PETREA arborea, Kunth. Venezuela, Mexico.
CONGEA tomentosa, Roxb. India, West Africa.
TECTONA grandis, L. India.

CLERODENDRON hastatum, Wall. Silhet.

,, fragrans, Vent. China.

,, Kempferii, South America.

,, tomentosum, India.

,, splendens, Don. China.

,, Thompsonæ, Hook. West Africa.

,, volubile, Guinea.

AMASONIA erecta, L. Trinidad, Venezuela.

GMELINA arborea, Roxb. India.

VITEX capitata, Vahl. Trinidad, Guiana, Brazil.

HOMLSKIOLDIA sanguinea, Retz. Himalaya, Silhet.

ACANTHACEÆ.

THUNBERGIA alata, Bojer., , war. alba, lon.

,, Vogeliana, India.

,, Hawtaynii, Wall. India, Ceylon.

,, fragrans, Roxb. India.

,, Harrisii, Madagascar.

HEXACENTRIS Mysorensis, Mysore.

,, lutea, Moulmeine.

DIPTERACANTHUS Herbstii, Hook. Brazil.

RUELLIA geminiiflora, Kunth. W. Indies, Venezuela.

HENFREYA scandens, Lindl. Sierra Leone.

ASYSTASIA Gangetica, T. Ander. Tropical Asia & Africa.

STEPHANOPHYSUM Baikei,

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BARLERIA cristata, L.
                               Cevlon, Java, China.
                               India, Ceylon, Abysinia.
            Prionitis, L.
            Arnottiana, N. ab. E. Ceylon.
            Gibsoni, Dalz.
                               India.
            lupulina.
                               India.
CROSSANDRA infundibuliformis,
                     N. ab. E. South India, Ceylon.
GEISSOMERIA aurantiaca, Lindl. Brazil.
ALPHELANDRA tetragona, N. ab. E. Equatorial America,
                                      Trinidad.
                 cristata, H.K. W. Indies.
                 pulcherrima,
                               Brazil.
    ,,
                 Leopoldii,
                               Brazil.
PACHYSTACHYS coccinea, Nees, Trinidad, Guiana to Brazil.
GRAPTOPHYLLUM hortensis, Nees. Islands of Pacific.
                      ,, vars, versicolor,
                             bicolor,
    ,,
CYRTANTHERA magnifica, Nees. Brazil.
                 catafræfolia, Brazal.
                 Pohliana,
                               Brazil.
                 velutina,
                               Brazil.
    ,,
                               Trinidad (Aripo).
                 sp.
JUSTICIA Adhatoda, L.
                               India, Ceylon.
          decussata, Rox.
                               Burmah.
          secunda, Vahl.
                               W. Indies, S. America.
          androsæmifolia, T. Anders. W. Indies (Trinidad).
ERANTHEMUM nervosum, R.Br. India.
                leuconervum, Brazil.
                rubronervum, Cordilleras.
BELOPEROME nemorosa, Nees. Jamaica, Trinidad.
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DICLIPTA Martinicensis, Juss. Martinique, Trinidad. BRAVAISIA floribunda, DC. Western Tropics.

PEDALIACEÆ.

MARTYNIA diandra, Glex. Cuba to Mexico. SESAMUM orientale, L. Tropical Asia & N. Africa.

BIGNONIACEÆ.

BIGNONIA equinoctialis, L. Western Tropics.

,, Martinii, DC. Trinidad.

,, unguis, L. W. Indies (Trinidad).

,, rufinervis, Hoff. St. Vincent, Trinidad, Venezuela.

,, venusta, Ker. Minas Gereas.

MILLINGTONIA hortensis, L. Burmah.

CALOSANTHES Indica, Blume. India, Ceylon, Ohina.

MACFADYENA uncinata, A. DC. Guiana, Trinidad.

ARABIDÆA Sieberii, DC. Trinidad.

PETHECOCTENIUM Aubletii, Splitz. Mexico to Brazil, (Trinidad).

SPATHODEA stipulata, Wall. Burmah.

,, Indica, India.

STEREOSPERMUM chelonoides, A. DC. India, Ceylon.

PHYLLARTHRON Comorense, Boj. Comoro Islands.

COLEA cauliflora, A. DC. Madagascar.

CRESENTIA Cujeti, L. Mexico to Brazil (Trinidad)

, alata, H. B. K. Mexico.

,, Curcubitina, L. W. Indies, Venezuela.

,, macrophylla, Venezuela.

PARMENTIERA cerifera, DC. Panama.

KIGELIA pinnata, A. DC.

Mozambique.

GESNERIACEÆ.

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COLUMNEA longiflora,
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,, scandens, L. Dominica, Trinidad, Guiana.
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,, hirsuta, Swartz. Trinidad.

BESLERIA lutea, L. Western Tropics.

EPISCEA melittifolia, Mart. W. Indies (Trinidad).

GESNERIA corymbosa, Swartz. Jamaica.

ISOLOMA hirsuta, Reg. Trinidad, Venezuela.

ACHIMENES longiflora, Decsne. Guatemala.

,, grandiflora, Decsne. Mexico.

, coccinea, Pers. Jamaica.

, vars.—Amhoise Verschaplt,

Beaumanniana,

,, Beaumanniana,

, , Carl Woolfarth,

,, Dazzle,

,, Estella,

,, Grandis,

, Georgeana Discolor,

,, ,, Margarette,

,, rosea magnifica.

GLOXINIA Passinghami, Rio Janeiro.

nebra, Rio Janeiro.

,, speciosa, Rio Janeiro.

, vars.—Acton Green,

,, ,, Alico Mande,

" A. de Kimbler,

,, Cerise violet,

,, ,, Emerald,

GLOXINIA vars.—Empératrice Eugenie,

- " Espérance,
- ,, Indienne,
- ,, ,, Leander,
- ,, Lord Lyon,
- ,, Mdme. de Smet,
- ,, Mon. Borsig,
- ,, Princess Mary,
- ,, Rose et cochinille.

RYTIDOPHYLLUM grande, Mart. Jamaica, Trinidad. ÆSCHYNANTHUS grandiflorus, G. Don. Bengal.

- ,, speciosus, Hook. Java.
- ,, pulcher, Decsne. Java.
- .. Lobbianus, Hook. Java.
- ,, Albicans, Borneo.

SCROPHULARIEÆ.

BROWALLIA demissa, L. W. Indies (Trinidad), Tropical South America.

BRUNSFELSIA Hopeana, Benth. Trinidad, Brazil.

- ,, eximia, Scheid. Brazil.
- ,, acuminata, Rio Janeiro.
- ,, calycina major, Brazil.
- ,, confertiflora,
- ,, Americana, Swartz. W. Indies (Trinidad).

ANGELONIA salicarifolia, Bonpl. Trinidad, Tropical South
America.

ANTERRHINUM majus, L. Europe.

MAURANDIA Barclayana, Lindl. Mexico.

PENSTEMON congestus, Mexico.

LOPHOSPERMUM scandens, Don. Mexico.

MYOPORINE Æ.

BONTIA daphnoides, L.

Barbadoes, Trinidad.

AVICENNIA nitida, Jacq.

Western Tropics and Tropical Africa.

UTRICULARIEÆ.

UTRICULARIA montana, Jacq. Western Tropics.

,, angustifolia, Benj. Trinidad, Guiana.

,, myriocysta, St. Hil. Trinidad, Guiana.

POLYGALACEÆ.

POLYGONUM acre, Kunth.

,, acuminatum, Kunth. Western Tropics.

COCCOLOBA uvifera, Jacq. Western Tropics.

,, latifolia, Lam. Trinidad, Guiana.

, crescentiifolia, Cham. Trinidad, Brazil.

,, Guianensis, Meisn. Trinidad, Guiana.

,, punctata, L. W. Indies (Trinidad), Venezuela.

ANTIGONON leptopus, Hook. et Arn. Mexico.

NYCTAGINEÆ.

BOERHAAVIA erecta, L. Western Tropics.

,, paniculata, Rich. Western Tropics.

MIRABILIS Jalappa, L. Western Tropics.

BUGAINVILLEA glabra, Chois. Rio Janeiro, Minas Gereas.

,, spectabilis, Wild. Brazil.

,, warsewiczii,

PISONIA alba, Spank. Timor.

inermis, Jacq. Western Tropics.

,, aculeata, L. Western Tropics, & Madagascar.

CHENOPODIACEÆ.

CHENOPODIUM ambrosioides, L. Western Tropics.

AMARANTACE.E.

CELOSIA cristata, Moy. India, Java.

AMARANTHUS oleraceus, Rox. Tropics (cultivated).

", tricolor, Japan.

,, sanguinens, L. Tropics.

,, caudatus, India.

PHYTOLACCACE.E.

PETIVERIA alliaceæ, L. Western Tropics.

RIVINA lævis, L. Western Tropics.

PHYTOLACCA icosandra, L. Western Tropics.

LAURINEÆ.

CINNAMOMUM Zeylanicum, Breyn. Ceylon.

nitidum, N. ab. E. Sumatra.

,, sp.

CAMPHORA officinarum, Bauh. Japan, China.

PERSEA gratissima, N. ab. E. Tropical America.

AYEDENDRON citrifolium, Nees. Trinidad, Brazil.

NECTANDRA mollis, Nees. Western Tropics.

,, sanguinea, Rottb. Western Tropics.

LAURUS nobilis, L. Asia Minor, shores of Mediterranean.

, aggregata, Sims. China.

SANTALACEÆ.

SANTALUM album, L. Malabar, Islands of Malayan Archipelago.

THYMELEÆ.

DAPHNOPSIS tinifolia, Grise. Jamaica.

LAGETTA linearis, Lam. Jamaica.

,, funifera, Brazil.

HERNANDIEÆ.

HERNANDIA sonora, L. E. Indies, Pacific Islands.

PROTEACEÆ.

GREVILLEA robusta, Cunn.

RHOPALA Skinnerii,

Do Tonghii

De Tonghii,

Moreton Bay.

Guatemala. Guatemala.

, crenata,

montana, Aubl.

Panama to Brazil, Trinidad.

HAKEA lissospermum,

.. salicifolia,

acicularis,

,,

Australia.
Australia.

Australia.

ELEAGNACEÆ.

ELEAGNUS reflexus, China, Japan.

variegatus, China, Japan.

MYRISTICEÆ.

MYRISTICA fatua, W. Surinam.

, fragrans, Houtt. Molucean Archipelago.

, Surinamensis, Roland. Trinidad, Guiana, Brazil.

,, sp. Trinidad.

ARISTOLOCHIACEÆ.

ARISTOLOCHIA grandiflora, Swartz. Jamaica, Trinidad.
,, odoratissima, L. Jamaica, Trinidad, Vene-

odoratissima, L. Jamaica, Trinidad, Vene-

ARISTOLOCHIA barbata, Jacq. Trinidad, Venezuela. triloba, L. Western Tropics. ,, NEPENTHACE Æ. NEPENTHES Rafflesiana, Jack, Singapore, Sumatra. gracilis major, Singapore, Sumatra. Singapore, Sumatra. lævis, ampullacea, Singapore, Sumatra. ,, BEGONIACE A. BEGONIA humilis, Dryand. Trinidad. ulmifolia, Wild. Trinidad, Venezuela. glandulifera, Grise. Trinidad. ,, scandens, Swartz. Dominica, Trinidad, Guiana te Brazil. fagifolia, Fish. Brazil. Malabarica, Dryand. India. India. Mærhingii, Jamaica. nitida, Dryand, Ingramii, Moore. Peru. Diswilliana Perm fuschioides, Hook. New Grenada. acrifolia, Kunth. Mexico. Natalensis, Natal. manicata, Brong. Brazil. heracleifolia, S. & C. Mexico. Rex, J. Pz. Assam. 3 5 " Sambo, Princess Marie, riciniifolia, Mexico. hydrocotylifolia, Hook. Tropical South America.

Brazil.

nelumbæfolia.

BEGONIA velutina,

- ,, crassicaulis, Lindl. Guatimala.
 - " macrophylla, Wild. Jamaica.
 - ,, muricata, Scheidw. Brazil.
 - ,, longipes, Hook. Mexico.
 - , sp. Cuba.
 - ., dichotoma Wild. Caracas.
 - ., argyrostigma, Fisch. Brazil.
 - undulata, Schott. Mexico to Brazil.
 - ,, sp. Mexico.

Beautiful hybrids raised in the Botanic Garden, Trinidad.

b. Mrs. C. W. Warner.

B. argyrostigma, $\begin{cases} a. \end{cases}$

,, hybridization uncertain, a.

,, ,, ,, d.

EUPHORBIACEÆ.

TIEIRONYMA alchornoides, Allem. Jamaica, Trinidad.
CICCA disticha, L. Cultivated in Tropical Gardens.

PHYLLANTHUS Cenami, Swartz. Western Tropics.

,, Niruri, L. Tropics.

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JATROPHA gossypifolium, L. W. Indies (Trinidad).
            hasta, Jacy.
                               Cuba, Trinidad.
    ,,
            Cureas, L.
                               Tropies.
            podagrica, Hook.
                               New Grenada.
            pandaræformis, Wild. Cuba.
            multifida, Wild.
                               Tropical South America.
JANIPA Mainhot, Kunth.
                               Tropies.
         utilissima, Pohl.
                               Tropics.
                               Moluceas, Timor.
ALEURITES triloba, Forst.
RICINUS communis, L.
                               E. Indies.
                               W. Indies (Trinidad).
CROTON eleuteria, Swartz.
          urticifolius, Lam.
                               W. Indies (Trinidad).
                               W. Indies (Trinidad).
          hirtus. L'Her.
          gossypifolium, Vahl.
                               W. Indies (Trinidad).
          tiglium, L.
                               India, China.
          discolor.
                               India.
CODLEUM pictum, Hook.
          variegatum, Blume.
                  var. longifolium,
                                     Philippine Islands.
                     ,, elegans,
                     ,, medium,
                     ,, premorsum,
TRIGONOSTEMON nemoralis, Thwaites, Cevlon.
C.ELEBOGYNE ilicifolia, J. Sm. Australia.
MABEA occidentalis, Benth. W. Indies (Trinidad).
ACALYPHA macrostachya, Jacq. Trinidad, Caracas.
TRAGIA volubilis, Lindl.
                              Western Tropics.
SAPIUM aucuparium, Jacq. Western Tropics.
HIPPOMANE Mancinella, L. Western Tropics.
               spinosa,
    : 2
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Western Tropics. HURA crepitans, L. OMPHALEA triandra, L. Trinidad, Jamaica, Guiana DALECHAMPIA scandens, L. Western Tropics. Roezliana, New Grenada. hypericifolia, L. Western Tropics. splendens, Boj. Bourbon, Madagascar. EUPHORBIA hypericifolia, L. Canariensis, L. Canary Islands, C.G. Hope. lophagona, South Africa. tetragona, South Africa. ROTTLERA tinetora, Roxb. India. SAUROPUS Gardnerii. India. STILLINGIA sebifera, A. Juss. China. BUXUS sempervirens, L. Britain, South Europe, Persia. PUTRANJIVA Roxburghii, Wall. India. SALICINE.E. SALIX Bak aica, L. Levant. ,, HC oltiana, Wild. Mexico to Peru. URTICACEÆ. Western Tropies. URERA Caracasana, Gaud. Western Tropics. baccifera, Gaud. LAPORTEA magnifica, India. FLEURYA astuans, Gand. Tropics. PILEA micromera, Liebm. Western Tropics. ,, inaequalis, Wedd. W. Indies (Trinidad). URTICA sp. Martinique. BŒHMERIA nivea, Gand.

cylindrica, Wild.

PHENAX vulgaris, Wedd.

India, Ceylon, China, Malay Islands.

W. Indies (Trinidad).

ramiflora, Jacy. W. Indies (Trinidad).

Martinique, Trinidad, Prazil.

MORACEÆ.

MORUS alba, L.

Asia Minor, Himalaya.

nigra, Wild.

Italy.

BROUSSONETIA papyrifera, Vent. China, Japan.

MACLURA zanthoxylon, Eadl. Western Tropics.

FICUS nymphæfolia, L.

Trinidad, Tropical America

,, laurifolia, Lam.

Jamaica, Trinidad.

,, crassinerva, Desf., populnea, Wild.

W. Indies (Trinidad). Trinidad, Antigua.

, populnea, n aa. 1 mindad, A , carica, L. Asia Minor.

,, ferruginea

Brazil.

,, pallida, Vahl.

Trinidad.

,, religiosa,

India, Ceylon.

" elastica, Roxb.

India. India.

,, comosa, Roxb.

India, Cer =

,, indica, L., elastica, Roxb.

Tropical Spe. u, Assam.

,, repens, Wild.

Bengal, Assam.

,, congomerata, Roxb.

Tropical Himalaya.

 ${\tt DORSTENIA\ Contrajerva},\ L.\quad {\tt Western\ Tropics}.$

ARTOCARPACEÆ.

BROSIMUM Aubletii, Poepp. Western Tropics.

Alicastrum, Swartz. Jamaica.

CECROPIA peltata, L.

W. Indies, Venezuela.

ARTOCARPUS incisa, L. Pacific Islands.

, ,, var.,

,, integrifolia, L. India.

,, Lakoocha, Roxb. India, Ceylon, Java.

CANNABINIÆ.

CANNABIS sativus, L.

Central Asia, Himalaya.

CASUARINACE Æ.

- New South Wales. torolosa, Ait.
- leptoclada, Miquel. New South Wales. ,,
- quadrivalvis, Labill. New South Wales, New Zealand.
- West Australia. Sp. ,,

PIPERACEÆ.

PIPEROMIA mimularifolia, Kunth. W. Indies (Trinidad).

- exilis, Grise. W. Indies (Trinidad).
 - Western Tropics. tenella, Dict.
- pellucida, Kuth. Jamaica, Trinidad, Brazil. repens, Kunth. W. Indies (Trinidad).
- obtusifolia, Miq. Mexico to Brazil.
- incana, Hair. Brazil.
- W. Indies.
- cul abella, Haw. Brazil.
- arifolia, variegata, New Grenada.

ENKEA smilacifolia, Kunth. Panamato Brazil (Trinidad)

Western Tropics. Sieberi, Mig.

SCHILLERIA caudata, Kunth. W. Indies (Trinidad).

ARTANTHE Bredermeyeri, Miq. W. Indies (Trinidad).

- ādunca. Mig.
- scabra, Mig.
- tuberculata, Mig.
- æqualis, Miq.

PIPER nigrum,

Cubeba, L. OTTONIA Vahlii, Spring. Jamaica, Trinidad, Brazil.

St. Vincent, Trinidad.

Dominica, Trinidad.

India, Ceylon, Malayan Archipelago.

Malayan Archipelago.

Trinidad.

PINACEÆ.

| I IMACIAI. | | | |
|------------------------|------------------------|------------------|--|
| PINUS | S Ehrenbergii, | | |
| ,, | Canariensis, Buch. | Canary Islands, | |
| ,, | Nordmanniana, | Crimea. | |
| ,, | macrophylla, Lindl. | Mexico. | |
| ,, | insignis, Douglas. | California. | |
| ,, | Strobus, L. | North America. | |
| ,, | Verschafeltii, | Mexico. | |
| ,, | Antoniana, | Mexico. | |
| ,, | maginfica, | Mexico. | |
| ,, | longifolius, Lam. | North India. | |
| ,, | parviflorus, | Japan. | |
| ,, | Menzicsii, Lond. | California. | |
| ARAU | CARIA imbricata, Pavon | . Chili. | |
| 1) | excelsa, Ait. | Norfolk Island. | |
| ,, | Bidwellii, Hook. | Moreton Jope. | |
| , . | Cookii, Hook. | New Calia | |
| DAMM | ARA Moorei, | New South Wales. | |
| JUNII | ERUS excelsus, Wild. | Himalaya. | |
| ,, | Chinensis, | China. | |
| ,, | thurifera, Wild. | Spain. | |
| ,, | Japonica, | Japan. | |
| ,, | Barbadensis, Wil | d. | |
| ,, | sagittifolia, | | |
| THUJ. | A orientalis, Tourne. | Asia. | |
| ,, | aurea, | Japan. | |
| ,, | gigantea, | California. | |
| LIBROCEDROS decurrens, | | | |
| BIOTA | pendula, <i>Endl</i> . | North India. | |
| ,, | Meldensis, Gar | rden hybrid. | |
| | | | |

| THUJO | PSIS dolabrata, | Japan. |
|----------|------------------------------|----------------------------|
| ,, | borealis, Glanca. | California. |
| ,, | lætevirens, | Japan. |
| CRYPT | OMERIA elegans, | Japan. |
| ,, | Japonica, Don | . Japan. |
| ,, | Lobbi, | |
| CUPRE | SSUS sempervirens, | Candia. |
| ,, | pyramidalis, Targ | .South Europe. |
| ,, | horizontalis, Mill | . South Europe. |
| ,, | torulosus, | California. |
| ,, | funebris, Endl. | China, Japan. |
| ,, | thyoides, | China, Japan. |
| RETINO | SPORA obtasa, | Japan. |
| ,, | picifera, | Japan. |
| ,, | squarrosa, | Japan. |
| ,, | | Japan. |
| ,, | leptoclada, | Japan. |
| ,, | filifora, | Japan. |
| ,, | ericoides, | Japan. |
| ,, | plumosa, | _ |
| CALLIT | RIS quadrivalvis, Vent. | South Europe, North Africa |
| ,, | Australis, | Australia. |
| ,, | columnaris, | Australia. |
| TAXODI | IUM distichum, | North America. |
| WIDDRI | ${ m INGTONIA}$ cupressoides | , Cape G. Hope. |
| FRENEI | A Gunnii, | Tropical Australia. |
| ,, | Ventenanti, | New Holland. |
| TAXACEÆ. | | |
| TAXUS | baccata, | Europe. |
| | horizontalis, | Europe. |

TAXUS drupaceus,

China.

TORREA nucifera,

Japan.

PODOCARPUS elongatus, P. S. South Africa.

neriifolius, D. Don. Nepal.

salicifolius, Kunth. Trinidad, Jamaica, Cuba.

Trinidad, Jamaica. coriaceus, Rich.

CYCADEÆ.

CYCAS revoluta, Thun.

China.

,, circinalis, L.

Moluceas.

Rumphii, Miq.

Moluceas.

sp.

South Africa. Mexico.

DION edule, Lindl.

ZAMIA integrifolia, Ait.

Cuba, Hayti, Jamaica. MACROZAMIA Denisoni, Moore et Muel. Moreton Bay.

ENCEPHALARTOS Lehmannii, Cape G. Hope.

villosus,

Cape G. Hope.

Barterii, Hook. West Africa. "

PALMEÆ.

CHAMÆDOREA excelsa,

Mexico.

HYOSPATHE pubigera, Grise. et Wendl. Trinidad.

EUTERPE sylvestris,

Brazil.

oleracea, Mart.

Jamaica, Trinidad, Guiana.

sp.

Trinidad.

ŒNOCARPUS Batua, Mart.

Trinidad, Amazon.

OREODOXA oleracea, Mart.

W. Indies (Trinidad), Mexico to Brazil.

PINANGA maculata,

Bengal.

India, Ceylon, Malayan ARECA Catechu, L. Peninsula. rubra, Bonj. ,, horrida, Griff. Moluceas. Madagascariensis, Mart. Madagascar. lutescens, ,, Bauerii, Hook. Norfolk Island. SEAFORTHIA elegans, R. Br. Tropical Australia. CARYOTA urens, L. India. sobolifera, Wall. India. Cummingii, Pacific Islands. mitis, Lour. China. elegans, ,, humilis, Rein. CALAMUS Roxburghii, L. India. viminalis, India. Jenkinsii, India. Borneo, Sumatra. asperrimus, India (Calcutta). sp. Trinidad. MAURITIA flexuosa, Mart. BORASSUS flabelliformis, L. Eastern Tropics. LATANIA glaucophylla, mirabilis. 22 Borbonica, L. Bourbon. Commersonii, L. Mauritius, Madagascar. GEONOMA vaga, Grise. et Wendl. Trinidad, Tropical South America. Schottiana, Mart. Brazil, New Grenada. 9.9 fenestrata, Hort. Brazil.

Brazil,

Verschafelti,

7.7

Trinidad, Tropical South MANICARIA saccifera, Mart. America. Pacific Islands. PRITCHARDIA Pacifica, CORYPHA umbraculifera, L. Ceylon, Malabar. Bengal. elata, Rox. Australia. Australis. LIVISTONA Jenkinsii, Griff. Assam. LICUALA spinosa, Warmb. Malayan Peninsula, Java... SABAL umbraculifera, Mart. Bahamas. ,, Palmetto, Central America. mauritiiformis, Grise. ct Wendl. Trinidad (?) Venezuela South United States. Adansonii, Guern. carata, H.P., MS. Trinidad. CHAMÆROPS stauracantha. Mexico. Japan, China. RAPHIS flabelliformis, Ait. THRINAN parviflora, Swartz. Jamaica, Trinidad. radiata, Lodd. Jamaica, Trinidad. PHŒNIX dactylifera, L. N. Africa, Syria, Arabia. sylvestris, Roxb. Bengal. Leonensis, Roxb. Sierra Leone. India (Sunderbund), farinifera, Roxb. acaulis, Roxb. Bengal, Behar. India. sp. DESMONCUS major, Creug. Trinidad. minor, II.P., MS. Trinidad. BACTRIS simplicifrons, Mart. Trinidad, Brazil. acanthonemis, Mart. Trinidad, Guiana, Brazila Cuesa, Creug. Trinidad. Brazil. maraja,

Trinidad.

sp.

23

| GUILIELMIA speciosa, | | Tropical South America? |
|---|--------------------------|----------------------------|
| ,, | sp. | Trinidad (Mission). |
| MARTINEZIA caryotæfolia, | | Martinique, San Domingo. |
| ACRO | COMIA sclerocarpa, Mart. | Trinidad, Panama. |
| 29 | vulgare, L. | Trinidad, Tropical South |
| | | America. |
| 29 | Mexicana, | Mexico. |
| , ,, | rostrata, Hook. | Jamaica, Martinique, San |
| | | Domingo. |
| ATTAI | LEA compta, Mart. | Brazil. |
| ,, | mirabilis, | Brazil. |
| MAXIMILIANA regia, Mart. | | Trinidad, Tropical South |
| | | America. |
| 7 7 | caribæa, Grise. et Wendl | Trinidad, Guiana, Surinam, |
| | | Venezuela. |
| ELAIS | Guiniensis, L. | West Africa. |
| COCOS nucifera, L. | | Naturalized in almost all |
| | | Tropical Countries. |
| ,, | plumosa, Mart. | Brazil. |
| ,, | botryophora, Mart. | Brazil. |
| ,, | campestris, Lodd. | Tropical South America. |
| ,, | amara, Jacq. | Brazil. |
| ,, | coronata, Mart. | Brazil. |
| ,, | Romanzorffii, | Brazil. |
| DIPLOTHEMIUM maritium, Mart. Brazil. | | |
| ARRHENGA saccharifera, Labill. Malayan Islands. | | |

WALLICHIA caryotoides, *Roxb*. Tropical Sikkim, Assam. PHYTELEPHAS macrocarpa, *Ruiz. et Pav.* Guiana, Surinam, New Grenada.

PANDANACEÆ.

| CARLUDOVICA | . palmata, | Brazil. |
|-------------|------------|---------|
|-------------|------------|---------|

,, Plumierii, Kunth. Trinidad, Demerara.

PANDANUS odoratissimus, L. f. Shores of India & Arabia.

| | utilis, Bojer. | Mauritius. |
|----|-----------------|-------------|
| ,, | attitio, Dojor. | zizuuzizuu. |

,, furcatus, Roxb. Tropical Sikkim.

,, variegatus, Miq. Balie.

,, elegans, Isle of France.

,, Lais, Hab. Ignot.

,, Australia, Australia.

,, humilis, Rumph. Mauritius.

,, inermis, Roxb. Amboyna.

TYPHACEÆ.

TΥΡΠ Λ angustifolia, L.

,, var. Domingensis, Pers. Trinidad, (this var.) Texas to Brazil.

AROIDEÆ.

AMORPHOPHALLUS campanulatus, Blume. Tropies.

" bulbifer, Blume. Bengal, Malay Peninsula.

CALOCASIA odora, Brong. Pegu.

,, antiquorum, Schott. Cultivated in Tropical Countries.

,, macrorhiza variegata, Tropical Asia.

, metallica, Borneo.

,, Veitchii, Borneo.

,, Lowii, Borneo.

,, Jenningsii, New Grenada.

,, gigantea, New Grenada.

,,

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CALADIUM bicolor, Vent. Brazil. splendens, 22 Chantinii, ,, Newmanii, ,, Tropical South America. Wightii, Pæcile, Houletii, hastatum, Lam. Belleymei, Brazil. marmorata, Math. Tropical South America. argyrites, Lamb. Brazil. ACONTIAS helliborifolius, Schott. Western Tropics. XANTHOSOMA atrovirens, Kunth. W. Indies. sagittifolium, Schott. W. Indies (Trinidad). PHILODENDRON dispar, Schott. Jamaica, Trinidad, Brazil. tripartitum, Schott. Jamaica, Trinidad, Brazil. ,, erubesceus, Lindl. Jamaica, Trinidad, Brazil. ANTHURIUM violaceum, Schitt. Mexico to Brazil. Guildingii, Schott. Western Tropies. cordifolium, Kunth. W. Indies (Trinidad) Brazil Trinidad to Brazil. acaule, Kunth. MONSTERA deliciosa, Brazil. pertusa, Grise. Western Tropics. SPATHIPHYLLUM canusofolium, Sclott. Trinidad, Brazil. AGLAONEMA marantæfolia, Schott. Brazil. DIEFFENBACHIA seguine, Schott. Trinidad, Tropical S. America. " variegata, Weirii, New Grenada.

Tearcoi, New Grenada.

DIEFFENBACHIA Baraquini, New Grenada.

MONTRICHARDIA aculeata, Creng. Trinidad, Guiana.

PISTACEÆ.

PISTIA stratiotes, Jacq.

Tropics.

LEMNA minor, L.

Temperate&TropicalZones

, trisulca, L.

Temperate&TropicalZones

ORCHIDACEÆ.

STELIS ophioglossoides, Swartz. Trinidad, Mexico to Guiana OCTOMERIA graminii folia, R.Br. Dominica, Trinidad.

MICROSTYLIS umbellata, Lindl. W. Indies (Trinidad),
Mexico.

DENDROBIUM moschatum, Wild. Silhet.

- ,, macrophyllum, Lindl. Manilla.
- ,, giganteum,
- ,, clavatum,
- ,, Dayanum,
- ,, Dalhousianum, Paxt. Moulmein.
- ,, agregatum, Roxb. Arracan.
- ,, formosum, Roxb. E. Indies.
- ,, densiflorum, Wall. Nepal.
- ,, nobile, Lindl. Tropical Sikkim, Assam.
- ,, Wallichianum,
- ,, tortile, Lindl. Moulmein.
- ,, fimbriatum, Hook. E. Indies.
- ,, occulatum, E. Indies.
- ,, albo-sanguineum, Lindl. Moulmein.
- ,, chrysanthum, Wall. Nepal.
- ,, Farmeri, Lindl. E. Indies.
- ,, Pierardei, Roxb. Tropical Himalaya, Assam
- Gibsoni, Paxt. E. Indies.

CÆLOGYNE speciosa, Borneo.
.. cristata, Nepal.

ISOCHILUS linearis, R. Br. Mexico to Brazil (Trinidad) EPIDENDRUM Ottonis, G. Rehb. Trinidad, Venezuela.

- ,, rufum, Lindl. Trinidad, Bahamas.
- ,, serrulatum, G. Rehb. Trinidad, Jamaica.
- , bicornutum, Hook. Trinidad, Venezuela.
- ,, indivisum, Bradf. Trinidad.
- ,, ciliare, L. W. Indies (Trinidad),
 Mexico to Grenada.
- ,, fragrans, Swartz. Cuba to Brazil, (Trinidad)
- ,, Trinitatis, L. Trinidad, New Grenada.
- ,, nutans, Swartz. Trinidad, Jamaica.
- ,, pallidæflorum, Hook. Trinidad, Jamaica.
- ,, nocturnum, L. Western Tropics.
- ,, elongatum, Jacq. Western Tropics.
- ,, Schomburgkii, Lindl. Trinidad, Brazil.
- ,, rhizophorum, New Grenada.
- ,, stroboliferum, G. Rehb. Trinidad, Jamaica, Guiana.
- ,, ramosum, Jacq. Cuba to Brazil, (Trinidad).
- " umbellatum, Swartz. Cuba to Brazil, (Trinidad).
- sthenopetalum, *Hook*. Trinidad, Jamaica, Guiana.
- ,, teretifolium, Swartz. Trinidad, Jamaica.
- ,, aurantiaeum,
- ,, vitellinum, Lindl. Mexico.
- " macrochilum, Hook. Guatimala.
- " atropurpureum,
- ,, dichromum,
- ,, aromaticum, Bate. Guatimala.

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HEXADESMIA fusiformis, Grise. Trinidad.
SOPHRONITIS grandiflora, Lindl. Organ Mountains.
BARKERIA spectabilis, Bate. Guatimala.
             Skinnerii, Lindl.
                                Guatimala.
             Lindleyana, Bate.
                                Costa Rica.
BROUGHTONIA sanguinea, R.Br. Jamaica.
LÆLIA gigantea,
                                Brazil.
         elegans, Morrem.
                                Brazil.
         Perinii grandiflora,
                                Brazil.
         purpurata, Lindl.
                                Brazil.
         autumnalis, Lex.
                                Mexico.
     ,,
         majalis, Lindl.
                                Guatimala.
CATTLEYA Dowiana, Bate.
                                Costa Rica.
             Trianiæ.
             Loddigei, Lindl.
                                Tropical America.
             Forbesii, Lindl.
                                Tropical America.
             Acklandæ, Lindl.
                                Brazil.
             lobata, Lindl.
                                Brazil.
    ,,
             Skinnerii, Bate.
                                Guatimala.
             labiata, Lindl.
                                Tropical South America.
             Mossiæ, Lindl.
                                Tropical South America.
    11
             superba, Lindl.
                                Demerara.
SCHOMBURGKIA undulata, Lindl. Trinidad, Venezuela.
                   Tibicinus, Bate.
                                    Honduras.
LEPTOTES bicolor, Lindl.
                               Brazil.
                               Western Tropics.
BRASSAVOLA cuculata R. Br.
PHAJUS Wallichii, Lindl.
                               Khasia Hills.
          grandifolius, Lour.
                               Tropics.
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Jamaica.

Trinidad, Venezuela.

BLETIA Shepperdii, Lindl.

florida, R.Br.

CYOTOPERA Woodfordii, Lindl. Trinidad, Guiana.

India, Ceylon. VANDA Roxburghii, R.Br.

Batemanii. Lindl. Moluceas.

insignis, Blume. Java.

suavis, Lindl. Java.

tricoler, Lindl. Java. China.

furva, Lindl.

cristata, Lindl. Nepal, Sikkim. Burmah, Sikkim. teres, Lindl.

PHALÆNOPSIS rosea, Lindl. Manilla.

> Philippines, & Islands of amabilis, Blume. Malayan Archipelago.

SACCALABIUM Blumei, Lindl. Java.

ampulaceum, Lindl. Sikkim.

giganteum,

guttatum, Lindl. India, Ceylon, China.

ÆRIDES Warnerii,

maculosum, Lindl. E. Indies.

odoratum cornutum, Lour. Khasia Hills, Sikkim.

suavissimum, Lindl. Malacca.

Philippines. quinquevulnerum,

Lobbi,

roseum, superbum, Lodd. E. Indies.

virens, Lindl. Java.

affline, Wall. Nepal.

CYMBIDIUM Mastersii, Griff. E. Indies.

aloifolium, Sw. - South India, Ceylon.

ANSELLIA Africana, Lindl. W. Africa.

Tropical South America, ASPASIA variegata, Lindl. and T. h. Had.

| TRICHOPELIA tortilis, | |
|----------------------------|-----------------------------|
| ,, suavis, Lindl. | Mexico. |
| NANODES discolor, Lindl. | Trinidad, Brazil. |
| DICHEA graminea, Grise. | Western Tropics. |
| LOCKHARTIA acuta, Rehb. | Trinidad, Venezuela. |
| ,, elegans, Hook. | Trinidad, Brazil. |
| POLYSTACHYA luteola, Hook. | W. Indies (Trinidad). |
| ONCIDIUM iridifolium, Ath. | Mexico to Brazil, Trinidad. |
| ,, triquetrum, | Jamaica. |
| ,, luridum, Lindl. | Trinidad, Venezuela. |
| | Trinidad. |
| ,, ampliatum, Lindl. | Trinidad, Venezuela. |
| ,, major, | Trinidad. |
| ,, Lancoanum, | Trinidad, Guiana. |
| ,, Spruceanum, | New Grenada. |
| ,, bifolium, $H.K.$ | Trop.S.America, Trinidad. |
| ,, sanguineum, | |
| ,, barbatum, Lindl. | Tropical South America. |
| ,, pulvinatum, | New Grenada. |
| ,, altissimum, Sec. | W. Indies. |
| ,, citrinum, Lindl. | Trinidad. |
| ,, flexuosum $R.Br.$ | Carupano. |
| ,, papilio, Lindl. | Trinidad, Venezuela. |
| ,, Cebolleta, Sw . | Trinidad, Venezuela. |
| ODONTOGLOSSUM Cervantesis | i, Llave. Mexico. |
| ,, grande, Bate. | Guatimala. |
| ,, gloriosum, | Guatimala. |
| ,, pulchellum, | Guatimala. |
| ,, sp. | Jamaica. |
| BRASSIA verrucosa, Bate. | Guatimala. |

| BRASSIA W | rayii, | Guatimala. |
|------------|-----------------------------|-----------------------------|
| ,, m | aculata, R.Br. | Jamaica, Trinidad. |
| ,, eε | udata, <i>Lindl</i> . | Jamaica. |
| MILTONIA | stellata, | Brazil. |
| STANHOPE | A grandiflora, Lindi | .Trinidad, Guiana. |
| PERISTERI | A elata, Hook. | Panama, New Grenada, |
| | | Venezuela. |
| 3 2 | pendula, Hook. | Trinidad, Demerara. |
| ,, | sp. | Trinidad. |
| BATEMANI | A Colleyi, Lindl. | Trinidad, Demerara. |
| GONGORA a | atropurpurea, <i>Hook</i> . | Trinidad, Guiana. |
| ,, 1 | naculata, Lindl. | Trinidad, Guiana. |
| CORYANTH | IES maculata, Hook | . Trinidad, Guiana. |
| ORNITHIDI | IUM confertum, Gri | se. Trinidad, Cuba. |
| HUNTLEYA | violacea, Lindl. | Trinidad, Guiana. |
| ,, | sp. | Trinidad. |
| ZYGOPETA | LUM cochleare, Lin | dl. Venezuela, Brazil, Tri- |
| | | nidad. |
| ,, + | Mackayii, <i>Hook</i> | . Brazil. |
| MAXILLAR | IA alba, | Jamaica, Trinidad, Guiana. |
| " | rufescens, Lindl. | Trinidad, Venezuela. |
| ,, | pallidæflora, Hook. | Trinidad, Cuba, Venezuela |
| ,, | sp. | Trinidad (Cedros). |
| ,, | sp. | Trinidad (Saut d'Eau). |
| LYCASTE SI | kinnerii, <i>Lindl.</i> | Guatimala. |
| ANGULOA (| Clowesii, | Columbia. |
| CAMARIDIU | ${ m JM}$ ochroleucum, Li | ndl. Guiana, Venezuela. |
| PAPHINIA | cristata, Lindl. | Trinidad, Guiana. |
| CATASETUE | M tridentatum, <i>Hook</i> | .Trinidad, Brazil. |
| MORMORDI | ES sp. | Carupano. |
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Venezuela.
CLOWESIA rosea, Lindl.
CYCHNOCHES ventricosa, Lindl, Brazil.
CYRTOPODIUM Andersonii, R. Br. Cuba to Brazil (Trinidad)
               cristatum, Lindl. Trinidad, Guiana.
ORNITHOCEPHALUS gladiatus, Hook. Trinidad.
              Creugerii, G. Rchb. Trinidad.
CRYPTARRHENIA pallidæflora,
                        G. Rehb. Trinidad, Mexico, Ecuador.
TRIZEUXIS falcata, Lindl.
                               Trinidad.
RODRIGUESIA secunda, Kunth. Trinidad, Venezuela, Brazil
BURLINGTONIA candida, Lindl. Demerara.
IONOPSIS utricularioides, Lindl. Jamaica, Trinidad.
           pallidæflora, Lindl.. Trinidad.
CALANTHE vestita, Lindl.
                               Tavov.
             nivalis.
             Veitchii,
                      superba,
LIMATODES rosea, Lindl.
                               Martaban.
POGONIA Surinamensis, Lindl. Trinidad, Guiana.
VANILLA aromatica, Grise.
                               Western Tropies.
           planifolia, Aud.
                               Mexico to Brazil (Trinidad)
           claviculata, Sw.
                               Jamaica, Hayti.
           lutescens,
SPIRANTHES pieta, Lindl.
                               Trinidad, Guiana, Brazil.
                 ", variegata, } Trinidad.
    ,,
                 ,, punctata.
    ,,
                simplex, Grise.
PHYSURUS plantagineus, Lindl. Trinidad.
CYPREPIDIUM Hookerii,
               barbatum, Lindl. Java,
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CYPREPIDIUM venustum, Wall. Nepal.

insigne, Wall. Nepal.

ZINGIBERACEÆ.

GLOBBA sp.

,,

E. Indies.

MANTISIA saltatoria,

E. Indies.

ZINGEBER officinale, Rosc.

Tropical Cultivated in

Countries.

CURCUMA sp.

Trinidad.

Roscoeana,

India.

KEMPFERIA rotundæfolia, L. Cultivated in Tropical Gardens.

AMOMUM granum-paradisi, Hook. fil. Sierra Leone.

melagueta, Rosc.

West Coast Africa.

ELETTARIA cardamomum, Maton. Malabar.

HEDYCHIUM angustifolium, Rox. India.

flavescens, B.C. India.

coronarium, Kan. Bengal, Cuba.

ALPINIA nutans, Rosc.

India, Ceylon, Philippines.

mutica. ,,

Java.

Allughas, Rose.

Malayan Peninsula.

COSTUS cylindricus, Jacq.

spiralis, Rose.

Trinidad, Guiana. Trinidad, Brazil.

spicatus, Sw.

W.Indies(Trinidad)Brazil

zebrinus,

New Grenada.

CANNACE E.

THALIA geniculata, L.

MARANTA arundinacea, L.

Trinidad, Guiana, Brazil. Tropical S. America.

Indica. Tass.

Western Tropics.

Toneliat, 11861. 2.3

Western Tropics.

| PHRYNIUM setosum, Rose. | Brazil. | |
|--|-----------------------------|--|
| ,, Porteanum, | Brazil. | |
| ,, sagarina, | Brazil. | |
| CALATHEA discolor, May. | Trinidad. Gaiana, New | |
| , | Grenada. | |
| ,, Allouya, Lindl. | Trinidad, Dominica, Gui- | |
| ,, comosa, Lindl. | Trinidad, Guiana. | |
| ,, Van den Heckei, | Brazil. | |
| ,, bicolor, Ker. | Brazil. | |
| ,, sp. | Trinidad (Caroni). | |
| ,, sp. | Trinidad (Caroni&St.Ann). | |
| CANNA Indica, L. | Jamaica, Venezuela. | |
| ,, Lamberti, Lindl. | Trinidad, Guiana. | |
| " edulis, Ker. | Trinidad, Guiana. | |
| ;, glauca, L. | Trinidad, Guiana. | |
| ,, Warcewiczii, L. | Brazil. | |
| MUSAC | E.E. | |
| MUSA paradisiaca, L. | Tropies. | |
| ., sapientum, L. | Tropics. | |
| ,, Cavendishii, Pasc. | India, China. | |
| ,, vittata, Hook. | West Africa. | |
| ,, textilis, | Manilla, Java. | |
| ,, rosacea, W . | Mauritius. | |
| HELICONIA Bihai, L. | Trinidad, Guiana to Peru. | |
| ,, pulverulenta, Linda | 7.Trinidad, Guiana to Peru. | |
| ,, psittacorum, L . | Venezuela to Brazil. | |
| " buccinata, Rox. | Sumatra, Moluccas. | |
| RAVENALA Madagascariensis, Sonn. Madagascar. | | |
| STRELITZIA augusta, Thunb. | Cape Good Hope, | |

STRELITZIA regina, H. K. Cape Good Hope. PHENACOSPERMUM Guianensis, Endl. Guiana.

IRIDEÆ.

CIPURA paludosa, Aubl.

Tropical America.

Martinicensis, Kth.

W. Indies, N. Grenada.

sp.-

Trinidad.

WATSONIA speciosa,

GLADIOLUS psittacinus, L.

LILIACEÆ.

GLORIOSA superba, L.

Bengal, Assam.

HEMEROCALLIS fulva, W. Levant.

AGAPANTHUS umbellatus, L'Herit. Cape Good Hope.

POLIANTHES tuberosa, L.

Tropical America.

PHORMIUM tenax, Forst.

Australia.

SANSEVIERA Guineensis, Wild. Guinea.

sessiliflora, Gard. China.

Guinea.

teretifolia,

ALOE Soccotrina, Lamb.

Soccotra.

" frutescens, ,, vulgaris, Lamb. Cape Good Hope.

Tropics.

,, spinulosus,

Cape Good Hope.

,, coarctata, Ræm et Schultes. Cape Good Hope.

YUCCA gloriosa, W.

S. United States America, Mexico.

sp.

aloifolia, variegata, L. Jamaica, Mexico.

SCILLA maculata,

ORNITHOGALUM lacteum, W. Cape Good Hope.

TULBAGHIA alliacea, W.

Cape Good Hope.

| ASPARAGU | aurea, <i>Pappe</i> . S officinalis <i>L</i> | Cape Good Hope. | |
|--|---|---|--|
| ASI ANAGO. | | | |
| | | S. Europe. Natal. | |
| CODDVIIV | sp. | Brazil. | |
| CORDILIA. | E heliconiæfolia, | | |
| ,, | 2 / | | |
| ,, | - | | |
| DD 4 C ZDX 4 | | | |
| DRACZENA | • | Tenerine, Socotra. | |
| ,, | • | O' T | |
| " | · | | |
| " | · | | |
| ,, | · | E. Indies, China. | |
| ,, | | | |
| ,, | | China. | |
| ,, | cannæfolium, | | |
| ,, | fragrans, <i>II. K.</i> | Africa. | |
| ,, | • | | |
| ,, | vivipara, | | |
| ,, | sp. | Natal. | |
| GASTERIA | sulcata, | Cape Good Hope. | |
| ,, | læte-puncatata, | Cape Good Hope. | |
| ,, | verrucosa, | Cape Good Hope. | |
| ,, | glabra, | Cape Good Hope. | |
| DIOSCOREÆ. | | | |
| DIOSCORE | A alata, L. | Cultivated in most Tropia | |
| | , | - | |
| 23 | ,, vars. a & b. G | • | |
| | | | |
| | · · | Trinidad. | |
| " | multiflora, Presl. | W. Indies (Trinidad). | |
| DRACÆNA "" "" "" "" "" "" GASTERIA "" "" DIOSCORE | tesellata, arborea, Assamica, terminalis, nobilis, ferrea, H. K. cannæfolium, fragrans, H. K. gracilis, vivipara, sp. sulcata, læte-puncatata, verrucosa, glabra, DIOSCOI A alata, L. ,, vars. a & b, G bulbifera, L. Kegeliana, Gr. | Natal. Cape Good Hope. Cape Good Hope. Cape Good Hope. Cape Good Hope. REÆ. Cultivated in most Tropical Countries. Exist. E. Indies, China. Trinidad. | |

DIOSCOREA discolor,

Tropical South America, Trinidad.

COMMELYNACEÆ.

- COMMELYNA Cayennensis, *Rich*. W. Indies (Trinidad) to Brazil, Tropical Africa.
 - ,, persicarifolia, DC.
 - ,, elegans, Kunth. Cuba to Brazil (Trinidad).
- TRADESCANTIA geniculata, Jacq. W. Indies (Trinidad),
 Mexico to Brazil.
 - ,, discolor, Swartz. Trinidad, Guadaloupe.
 - ,, umbellata, Vahl. Trinidad, Brazil.
 - ,, Warcewiczii, Brazil.
 - ,, sp. Trinidad.

RAPATEA paludosa, Aubl. Brazil, Trinidad.

DICHORIZANDRA Aubletiana, Rich. Western Tropics.

- ,, thyrsiflora, Vand. Brazil.
- " vittata,
- ,, undata, Peru.

CYPERACE/E.

- ,, polystachyus, Rott. Tropics.
- ,, compressus, L. Tropics.
- ,, viscosus, Ait. Western Tropics.

CYPERUS laxus, Lamb. Western Tropics.

- ,, Surinamensis, Rott. Mexico to Brazil (Trinidad)
- , trichodes, Grise. Jamaica, Trinidad.
- odoratus, L. W. Indies (Trinidad).
- elatus, L. E. and W. Indies, Guiana.

| CYPERUS | Valılii, Steud. | W. Indies (Trinidad). |
|-----------|---------------------------|------------------------------------|
| ,, | ligularis, L. | W. Tropics, S. Africa. |
| ,, | densiflorus, Mey. | Western Tropics. |
| ,, | eyclostachys, Grise. | Trinidad, Jamaica. |
| | flexuosus, Vahl. | Cuba to Brazil (Trinidad). |
| • • • | giganteus, Vahl. | Trinidad, Guiana. |
| ,, | esculentus, L . | Tropics, Italy, C.G. Hope. |
| ,, | rotundus, L | Tropics, and warmer tem- |
| | | perate parts. |
| " | alternifolius, variega | tus, New Zealand. |
| SCIRPUS r | etroflexus, <i>Poir</i> . | Mexico to Brazil (Trinidad), |
| ,, c | apitatus, L . | Tropics. |
| ,, fe | errugineus, L . | Tropics. |
| ,, b | rizoides, Swartz. | W. Tropics. |
| | apillaris, L. | Tropics. |
| ,, jı | incoides, Wild. | Cuba to Brazil. |
| KYLLINGA | brevifolia, Rott. | |
| ,, | var. plurifolia, Grise | .Cuba to Brazil (Trinidad). |
| FUIRENA 1 | ımbellata, <i>Rott</i> . | Tropies. |
| DIPLASIA | karatifolia, Rich. | Trinidad, Guiana, Brazil. |
| RHYNCHOS | SPORA cephalotes, V | Tahl. Panama to Brazil (Trinidad). |
| ,, | comata, Link. | Panama to Brazil (Trinidad) |
| ,, | curvata, Grise. | Trinidad. |
| ,, | cyperoides, Mart. | Mexico to Brazil (Trinidad) |
| ,, | stenorhyncha, Grise. | Trinidad. |
| " | Surinamensis, Nees. | Tropics. |
| ,, | filiformis, Vahl. | Trinidad, Brazil. |
| ,, | Vahliana, Grise. | Western Tropics. |
| " | Persooniana, Grise. | MexicotoGuiana(Trinidad) |
| | | |

SCLERIA pratensis, Lindl. Cuba to Brazil (Trinidad).

,, latifolia, Swartz. W. Indies.

,, bracteata, Cav. Cuba to Peru (Trinidad).

CALYPTROCARYA angustifolia, Nees. Trinidad, Brazil.

GRAMINEÆ.

ANDROPOGON brevifolius, Swartz. Tropics.

- ,, condensatus, Kunth. Western Tropics.
- ,, fastgiatus, Swartz. Western Tropics.
- ,, Schenanthus, L. Asia.

SORGHUM vulgare, Pers. Tropics, and S. Europe.

ANATHERUM muricatum, P. B. E. Indies.

SACCHARUM officinarum, L. E. Indies.

" var. Otalieite.

,, ,, Congo.

" Yellow Creole.

", ", ", Purple Cane.

,, ,, ,, Bourbon.

" ,, " White Cane.

", ", ", Ribbon Cane.

BAMBUSA gigantea, Wall. Burmah.

,, regia, Thoms. Burmalı.

vulgaris, Schred. E. Indies.

,, spinosa, Rox. Bengal.

,, Sieberi, Grise. E. Indies.

" sp. Trinidad.

STREPTOGYNE crinita, P. B. S. United States, to Guiana (Trinidad).

ERAGROSTIS pilosa, P. B. Tropics.

ERAGROSTIS ciliaris, Link. Tropics. ELEUSINE Indica, Grise. Tropics. LEPTOCHLOA mucronata, Kunth. Tropics. virgata, P. B. Western Tropics. filiformis, R. et P. Trop. America (Trinidad). CHLORIS radiata, Kunth. Tropics. polydactyla, Swartz. Mexico to Brazil (Trinidad) ISACHNE arundinacea, Grise. W. Indies (Trinidad) Tropical South America. ERIOCHLOA punctata, Hamilt. W. Indies (Trinidad). GYNERIUM argenteum, H.B.K. Brazil. SPOROBOLUS virginicus, Kunth. Tropical Swamps (Trinid ad littoralis, Kunth. South Canada to extreme ,, South America. Jacquemontii, Western Tropics. ,, Indicus, R. Br. Tropics. ANTHEPHORA elegans, Schreb. Mexico to Brazil (Trinidad) CENCHRUS echinatus, L. Tropics. SETARIA glauca, P. B. Temperate & Trop. Zones. OPLISMENUS hirtellus, R. Br. Guiana, Trinidad. Pacific Islands, Australia. variegatus, ,, PANICUM colonum, L. Tropics. crus-galli, Temperate, and most Tropical Countries. fuscum, Swartz. Mexico to Brazil (Trinidad) ,, molle, Swartz. Tropics. Mexico to Brazil (Trinidad) distichum, Lamb. stoloniferum, Poir. Guiana to Brazil (Trinidad) Western Tropics. maximum, Jacq. brevifolium, W. Indies (Trinidad).

| PANICUM | palmifolium, Poir. | Jamaica, Trinidad. |
|------------|------------------------|-----------------------------|
| ,, | sulcatum, Aubl. | Mexico to Brazil (Trinidad) |
| " | lanatum, Swartz. | W. Indies (Trinidad) Pa- |
| | | nama to Brazil. |
| ,, | oryzoides, Swartz. | Jamaica, Trinidad, Gui- |
| | | ana to Brazil. |
| " | sordidum, Thomp. | Trinidad. |
| ,, | pallens, Swartz. | Tropics. |
| OLYRA lat | ifolia, L . | W. Indies (Trinidad) Mex- |
| | | ico to Brazil. |
| PASPALU | M compressum, Necs. | Western Tropics. |
| ,, | conjugatum, Berg. | Western Tropics, Africa. |
| ,, | distichum, | Tropics, and Australia. |
| ,, | notatum, F lügg. | TropicalAmerica, Trinidad |
| ,, | decumbens, Swartz. | Trinidad, Venezuela. |
| " | ${f v}$ irgatum, L . | W. Indies (Trinidad) Mex- |
| | | ico to Uruguay. |
| VILFA par | vana, Steud. | W. Indies, Trop. America. |
| COIX lachr | yma, L . | Tropics. |
| ORYZA sat | iva, L . | Cultivated in most Tropical |
| | | and some Temp. Countries. |
| ZEA Mays, | L. | Tropics. |

POLYPODIACEÆ.

OLEANDRA nodosa, Presl. W. Indies (Trinidad), Guiana.

neriiformis, Car. Western Tropics.

DAVALLIA pentaphylla, Blume. Malayan Archipelago.

dissecta, J. Sm. Java.

" solida, Sw.

POLYPODIUM pectinatum, L. Trinidad, Trop. America.

POLYPODIUM paradisie, Lang. et Fisch. Brazil. LEPICYSTIS squamata, J. Sm. W. Indies (Trinidad).

 ${\tt GONIOPHLEBIUM\, loriceum, \it J.Sm.}. {\tt Trinidad, Trop. America}$

- ,, lætum, J. Sm. Trinidad, Brazil.
- ,, meniscifolium, J.Sm. Trinidad, Brazil.
- ,, dissimile, J. Sm. Trinidad, Jamaica.
- ,, neriifolium, J. Sm. Western Tropics.

SCHELLOLEPIS subauriculata, J. Sm. Malayan Archipelago PHLEBODIUM aureum, R. Br. Trinidad, Trop. America.

- " sporodocarpum, J. Sm. Trinidad, Trop. America.
- ,, dictyocallis, J. Sm. Trinidad, Trop. America.

LOPHOLEPIS piloselloides, J. Sm. Western Tropics.

,, vaccinifolia, J.Sm. Trinidad, Brazil.

ANAPELTIS serpens, J. Sm. W. Indies (Trinidad).

,, lycopodioides, J. Sm. W. Indies (Trinidad).

,, sp. Trinidad.

NIPHOPSIS augustatus, J. Sm. Malayan Archipelago.

NEVRODIUM lanceolatum, Fee. W. Indies (Trinidad).

DICRANOGLOSSUM furcatum, J.Sm. Western Tropics.

PHYMATODES vulgaris, Presl. Ceylon, Africa.

PLEURIDIUM crossifolium, Fee. Trinidad, Trop. America.

,, albo-punctatum, J. Sm. Trinidad, Trop. America. SELLIGUEA caudiforme, J. Sm. Java.

COLYSIS membranacea, J. Sm. E. India.

MICROSORUM irioides, Fee. E. Indies, Trinidad.

NIPHOBOLUS lingua, Spruce. E. Indies, China.

CAMPYLONEURON ensifolium, $J.\ Sm.$ Western Tropics.

,, phyllitidis, *Presl.* Trop. America, Trinidad. ELAPHOGLOSSUM conforme, *Schott.* Tropics.

 ${\bf ELAPHOGLOSSUMlatifolium, \textit{J.Sm.} Trop. Amer., Trinidad.}$

, L'Herminieri, J. Sm. Trop. America, Trinidad.

,, cuspidatum, J. Sm. Trop. America, Trinidad.

,, undulatum, J. Sm. Dominica, Trinidad.

,, Feei, Bory. Trinidad.

,, sp. Trinidad.

HYMENODIUM crinitum, Fee. W. Indies (Trinidad).

ANETIUM citrifolium, Splitz. W. Indies (Trinidad).

POLYBOTRYA caudata, Kunze. Western Tropics.

,, osmundacea, Humb. Western Tropics.

LOMARIOPSIS sorbifolia, Fee. W. Indies (Trinidad).

,, longifolia, J. Sm. Western Tropics.

OLFERSIA cervina, Presl. Trop. America, Trinidad.

SOROMANES serratifolium, Fee. Trinidad, Venezuela.

GYMNOPTERIS aliena, Presl. Trop. America, Trinidad.

,, sp. Trinidad.

,, nicotianæfolia, Presl.W. Indies (Trinidad).

NEUROCALLIS præstantissima, Fee. W. Indies (Trinidad). ACROSTICHUM aureum, L. Tropics and sub-tropics of both hemispheres.

PLATYCERIUM stemaria, Desv. W. Africa.

XIPHOPTERIS serrulata, Kaulf. Western Tropics.

GYMNOGRAMME calomelanos, Kaulf. Western Tropics.

,, tartarea, Desc. Trop. America, Trinidad.

,, L'Herminieri, Kunze. Guadeloupe.

,, sulphurea, Desr. Jamaica.

HEMIONITIS cordifolia, Rox. E. Indies.

palmata, L. W. Indies (Trinidad).

ANTROPHYUM lineatum, Kaulf. W. Indies (Trinidad).

,, lanceolatum, Kaulf. W. Indies (Trinidad).

ANTROPHYUM Cayennensis, Kaulf. Trinidad, Trop. Amer. HAPLOPTERIS lineata, J. Sm. Trinidad, Trop. America. DRYOMENIS plantaginea, J. Sm. W. Indies (Trinidad).

MENISCIUM giganteum, Mett. Trinidad, Trop. America.

- palustre, Radd. Trinidad, Brazil.
- reticulatum, Swartz. Trinidad, Trop. America.
- dentatum, Presl. Trinidad, Brazil.
- Trinidad (Aripo). sp.

GONIOPTERIS asplenioides, Prest. Trinidad, Jamaica.

- crenata, Presl. W. Indies (Trinidad).
- tetragona, Presl. W. Indies (Trinidad). ,,
- serrulata, J. Sm. Jamaica, Trinidad.

NEPHRODIUM refractum, J. Sm. Trinidad, Brazil.

- venustum, J. Sm. Trinidad, Jamaica.
- molle, R. Br. Tropics.
- patens, J. Sm. Trinidad, Demerara.

CYCLODIUM confertum, Presl. Trinidad, Guiana, Bahai. FADYENIA prolifera, Hook. Jamaica.

ASPIDIUM Plumieri, Presl.

Trinidad, Martinique, Dominica.

- trifoliatum, Swartz. Trinidad, Trop. America.
- macrophyllum, Swartz. Trinidad, Trop. America.
- cicutarium, Swartz. Trinidad, Jamaica.

HYPODERRIS Brownii, J. Sm. Trinidad, Guiana. W. Indies (Trinidad). LASTREA invisa, Presl.

- quinquangulare, J.Sm. Trinidad.
- Western Tropics. patens, Presl.

ARTHOPTERIS obliterata, J. Sm. Australia, Malayan Isles. NEPHROLEPIS exaltata, Schott. Western Tropics.

ensifolia, Presl. East Indies. ,,

DIDYMOCHLÆNA lunulata, Desv. Western Tropics, Malayan Archipelago.

AMPHIDESMIUM blechnoides, *Klotsch*. Tropical America, Trinidad.

PHEGOPTERIS ampla, Fée. Martinique, Trinidad.

,, spectabilis, Fée. Trinidad, Trop. America.

,, lachnopoda, J. Sm. Trinidad, Jamaica.

divergens, Fée. W. Indies (Trinidad).

effusa, Fée. W. Indies (Trinidad).

HYPOLEPIS repens, Presl. W. Indies (Trinidad).

CHEILANTHES microphylla, Sw. Trop. America, Trinidad.

,, radiata, J. Sm. Trop. America, Trinidad.

PLATYLOMA falcata, J. Sm. E. Indies, Australia.

ADIANTUM caudatum, L. E. Indies.

,, lucidum, Swartz. Western Tropics.

,, obliquum, Wild. Trop. America, Trinidad.

,, macrophyllum, Swartz. Western Tropics.

,, pulverulentum, L. Western Tropics.

,, intermedium, Swartz. Trop. America, Trinidad.

,, prionophyllum, H.B.K.Trop. America, Trinidad.

,, fovearum, Radd. Trinidad, Brazil.

, trapeziforme, L. Western Tropics.

,, cultratum, J. Sm. Trinidad, Trop. America.

,, tenerum, Swartz. Western Tropics.

,, concinnum, H. B. K. Tropical America.

,, cuneatum, L. et F. Brazil.

PTERIS cretica, albo-lineata, Hook.

,, heterophylla, L. Jamaica.

,, sulcata, Link. Trinidad, Brazil.

argyrea, Moore. E. Indies.

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PTERIS tremula, R. Br.
                                New Zealand.
                laciniata, Wild. W. Indies (Trinidad).
     ,,
                aquilina, L.
                                Trop. and temperate zones
     ,,
                                   of both hemispheres.
LITOBROCHIA grandiflora, J. Sm. Trop. America, Trinidad.
               macroptera, J. Sm. Trop. America, Trinidad.
    , ,
               podophylla, Presl. W. Indies (Trinidad).
    ,,
                                W. Indies (Trinidad).
               biaurita, J. Sm.
DORYOPTERIS sagittifolia, J. Sm. Brazil.
                pedata, J. Sm. Brazil.
LONCHITIS Lindeniana, Hook. Trinidad, Trop. America.
BLECHNUM longifolium, H.B.K.Trinidad, Trop. S.America.
             Braziliensis, Desv.
                                Brazil.
             occidentale, L.
                                Trinidad, Trop. America.
    ,,
             serrulatum, Rich.
                                Trinidad, Trop. America.
DOODIA caudata, R. Br.
                                Australia.
LOMARIA onocleoides, Spreng. Western Fropics.
SALPICHLÆNA volubile, J. Sm. Western Tropics.
ASPLENIUM serratum, L.
                                Trinidad, Trop. America.
                                Trinidad, Trop. America.
              crenulatum, L.
    ,,
                                Trinidad, Trop. America.
               salicifolium, L.
    ,,
              obtusifolium, L.
                                W. Indies (Trinidad).
                                W. Indies (Trinidad).
              firmum, Kunze.
                                W. Indies (Trinidad).
              dentatum. L.
              Belangeri, Kunze. Java.
              Fabianum, Homb. Mauritius, Australia.
              dimorphum, Kunze. Norfolk Island.
              viviparum, Presl. Mauritius.
              cicutarium, Sw. South America, Trinidad.
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eirrhatum, Rich. Trop. America, Trinidad.

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ASPLENIUM auritum, Swartz. Trop. America, Trinidad.
              macilenta, Kunze. Trop. America, Trinidad.
    32
              fragrans, Swartz. Jamaica, Trinidad.
    ,,
DIPLAZIUM plantagineum, Sw. Trop. America, Trinidad.
             grandifolium, Sw. Trop. America, Trinidad.
    ,,
             juglandifolium, Sw. Venezuela, Trinidad.
    11
             Shepperdi, Link.
                               W. Indies (Trinidad).
             striatum, Presl.
                                Trop. America, Trinidad.
    ,,
             sylvaticum, Swartz. E. Indies, Trinidad.
    ,,
             Franconis, Lieb. Mexico, Jamaica, Trinidad.
NEOTTOPTERIS Australasica, J. Sm. New South Wales.
                 nidus, J. Sm. E. Indies.
HEMIDICTYON marginatum, Presl. Trinidad, Trop. America
LINDSÆA trapeziformis, Dry. Western Tropics.
                                Western Tropics.
            stricta, Dry.
    ,,
            Guianensis, Dry.
                                Trinidad, Guiana.
SACCOLOMA elegans, Kaulf.
                                W. Indies (Trinidad).
SITOLOBIUM adiantoides, J. Sm. Trinidad, Trop. America.
                                Trinidad, Trop. America.
               Pavoni, J. Sm.
               dissectum, J. Sm. W. Indies (Trinidad).
CYATHEA arborea, Swartz.
                                W. Indies (Trinidad).
            aculeata, Wild.
                                W. Indies (Trinidad).
HEMITELIA speciosa, Kaulf.
                                Trinidad, Trop. America.
              grandifolia, Spreng. W. Indies (Trinidad).
    ,,
                                W. Indies (Trinidad):
              horrida, R. Br.
ALSOPHILA ferox, Presl.
                                Trinidad, Trop. America.
              aculeata, J. Sm. Western Tropics.
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,, sagittifolia, *Hook*. Trinidad. LOPHOSORIA pruinata, *Presl*. Trinidad, Trop. America.

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GLEICHENIA dichotoma, Hook. Tropics and sub-tropics of southern hemisphere.
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- ,, furcata, Spreng. E. Indies, Trinidad.
- ,, longipinnata, Kl. Trinidad.

HYMENOPHYLLUM asplenoides, Swartz. WesternTropics.

- ,, polyanthos, Swartz. Western Tropics.
- ,, fucoides, Swartz. Western Tropics.
- ,, ciliatum, Swartz. Western Tropics.
- ,, hirsutum, Swartz. Western Tropics.
- ,, hirtellum, Swartz. Western Tropics.
 ,, hirtellum, Swartz. Trinidad, Jamaica.
- ,, sericeum, Swartz. Trinidad, Jamaics, sericeum, Swartz. Western Tropics.

TRICHOMANES membranaceum, L. W. Indies (Trinidad).

- ,, muscoides, Swartz. W. Indies (Trinidad).
- ,, Krausii, Hook.et Grev.W. Indies (Trinidad).
- ,, sinuosum, Rich. W. Indies (Trinidad).
- ,, pyxidiferum, L. W. Indies (Trinidad).
- ,, trichoideum, Swartz. W. Indies (Trinidad).
- ,, crispum, L. Trinidad, Trop. America.
- ,, Kaulfussi, Hook. et Grev. Trinidad, Trop. America.
- ,, alatum, Swartz. Trinidad, Trop. America.

FEEA spicata, Presl. W. Indies (Trinidad).
,, nana, Bory. Trinidad, Guiana.

HYMENOSTACHYS elegans, Presl. Trinidad, Guiana.

LYGODIUM volubile. Swartz. Trinidad, Guiana to Brazil.

,, venustum, Swartz. Mexico to Brazil.

ANEMIA adiantifolia, Swartz. Western Tropics.

ANEMYDICTYON phyllitidis, J. Sm. Western Tropics.

SCHIZEA elegans, Swartz. Trinidad, Trop. America.

MARATTIACEÆ.

MARATTIA alata, Sm.

W. Indies (Trinidad).

,,

Western Tropics. DANEA nodosa, Sm. elliptica, Sm. Western Tropics. ,, Trinidad, Jamaica. stenophylla, Kunze. OPHIOGLOSSACEÆ. OPHIOGLOSSUM reticulatum, L. Tropics. palmatum, L. W. Indies (Trinidad) Tro-,, pical South America. LYCOPODIACEÆ. PSILOTUM triquetrum, Swartz. Tropics and sub-tropics of both hemispheres. SELAGINELLA serpens, Spring. Cuba. cuspidata, Link. Tropical South America. ,, flabellata, Spring. Tropics. stolonifera, Spring. W. Indies (Trinidad). ,, W. Indies (Trinidad). ciliauricula, Lobbi, Borneo. ,, felicina, Spring. Columbia, Peru. LYCOPODIUM carolinianum, L. Tropics. clavatum, L. Tropics. cernuum, L. Tropics. phlegmaria, L. Tropics.

taxifolia, L.

W.Indies(Trinidad), Peru

verticellatum, L. W. Indies (Trinidad), Bra-

zil. Natal.

ADDENDA ET CORRIGENDA.

| PAGE | |
|------|--|
| 251 | Read scabrella for scaberella. |
| 253 | " Nymphæaceæ for Nymphaceæ. |
| 254 | " Cruciferæ for Cruciferæ. |
| 255 | " volubilis for volubile; and add after 8th line-Canella |
| | alba, Murr. West Indies. |
| 259 | Add after 3rd line—Bombax ellipticum, H.B. Tropical South America. |
| 261 | Read nuciferum for nuciferm. |
| 267 | Add after last line—Connarace.e. |
| ~94 | Connarus Guianensis, Lamb. Trinidad, Guiana. |
| 292 | Read Petesia for Potesia, and parvifolia for pavifolia. |
| | 1:0.1: 0 |
| 293 | ,, angustifolia for angostifolia. |
| 294 | " Distreptus for Distrepus. |
| 296 | " Clomenocoma for Clemenocoma. |
| 298 | " Cainito, L. for Caimito, Wild. |
| 299 | " Lisianthus for Lasianthus, and after 17th line add |
| | Buddleya Madagascariensis, Lamb. |
| 301 | " Hæmadictyon for Hemydictyon, Cryptostegia for |
| | Cryptostegia. |
| 304 | " Geraseanthus for geraseanthus. |
| 305 | " Labiatœ for Labiateœ. |
| 306 | " volubilis for volubile; and after 20thline add Aloysia |
| | citriodora, Ort. Chili. |
| 307 | Add after 27th line—Acanthus montanus, Fernando Po. |
| 308 | Read Aphelandra for Alphelandra, and Cyrtanthera catal- |
| | pæfolia, Honduras, for C. Catafræfolia Brazil. |
| 309 | " Cucurbitina for Curcubitina, and after 17th line add: |
| | Tecoma leucoxylon, Mart. W. Indies (Trinidad), |
| | Guiana. |
| | pontanhalla DC Trinidad Guiana St |
| | Vincent. |
| | correctifolic Don St Vincent Trinided |
| | anastabilis Planck St Vincent Trinidad |
| | Stone Tues Westown Tropies |
| | igaminoides Tind! Moreton Bar |
| | Jacaranda mimosæfolia, Don. Brazil. |
| | poulistana Silv Brazil |
| 310 | ,, F |
| | Read rubra for nebra. |
| 311 | " Scrophularineæ for Schophalarieæ, and Antirrhinum |
| | for Anterrhinum. |

ADDENDA ET CORRIGENDA.

PAGE 312 Read Polygonaceæ for Polygalaceæ. sanguineus for sanguinens, and Aydendron for 313 Avedendron. 314 De Jonghii for De Tonghii. 315 acerifolia for acrifolia, and Mæhringii for Mærhingii. 316 Mæhringii for Mæringhii. 317 Manihot for Mainhot and Colebogyne for Colebogyne. 318 Add after 10th line—Emblica officinalis, Moluccas. 319 Read conglomerata for congomerata, and Cannabineæ for Cannabinize. 320 torulosa for torolosa. 321 Menziesii for Menziesii. 322 borealis glauca for borealis glanca. 326 Cancel Acrocomia vulgare L. and A. rostrata, Hook; and after A. Mexicana read Astrocaryum vulgare, L. and A. rostratum, Hook. 329 Add after 2nd line-BUTOMACE.E. Limnocharis Humboltii, Trinidad, Brazil. 332 Read Cyrtopera for Cyotopera. 334 Add after 27th line-Scuticaria Steelii, Lindl. Guiana. Read Cycnoches for Cychnoches, Cryptarrhena for Cryp-335 tarrhenia, and Cypripedium for Cyprepidium. 336 Zingiber for Zingeber. 338 Add after 8th line :- AMARYLLIDE.E. W. Indies (Trinidad), Amaryllis equestris, _1it. Guiana. Belladona, L. carinata, Spreng. Western Tropics. Cape Good Hope. Vallota purpurea, Herb. Cape Good Hope. Crinum aquaticum, Birch. Maranham. revolutum, asiaticum, China ,, East Indies. amabile Hæmanthus coccineus, Wild, Cape Good Hope. Cape Good Hope. tigrinus, Wild. Hypoxis decumbens, L. Trinidad, Brazil W. Indies (Trinidad). Paneratium cariboum, L. W. Indies (Trinidad). speciosum, L. Mexicanum, Kunth. Mexico. Alstræmia psittacina, Lchm Mexico. Trinidad (Carenage). SD. Clivia nobilis, Lindl. Cape Good Hope. ., Aitoni, Hook. Cape Good Hope,

ADDENDA ET CORRIGENDA.

PAGE

Mexico, W. Indies. Agave americana, L. Mexico. variegata. Saundersii, Hook. Mexico. Mexico. sp. Western Tropics. Fourcroya gigantea, Vent. Bromeliaceæ. Tropical South America. Ananassa sativa, Lindl. vars Red Antigua. Black Jamaica. Queen. ,, South Queen. Pitch Lake (Trinidad). Nidularium Karatas, Lemair. Cuba to Guiana. W. Indies (Trinidad), Bromelia pinguin, L. Guiana. Achmea fulgens, Paxt. Tropical South America. W. Indies (Trinidad). bracteata, Grise. Trinidad. sp. ,, Trinidad, Venezuela. paniculigera, Gr. Macrochordium melananthum, Beer. Trinidad, Guiana. Brocchinia Plumierii. Grise. W. Indies (Trinidad). Australia. Pitcairnia tabulæformis, angustifolia, Ait. Mexico, W. Indies. Tillandsia setacea, Swartz. W. Indies. Jamaica, Trinidad. compressa, Bert. Balbisiana, Schultz. W. Indies (Trinidad). flexuosa, Swartz. Trinidad, Venezuela. glutinosa, Mart. Trinidad. Jamaica, Trinidad. bulbosa, Hook. ,, Brazil. argentea, amæna, Lodd. W. Indies (Trinidad). anceps, Lodd. W. Indies (Trinidad). W. Indies (Trinidad). excelsa, Grise. Western Tropics. usneoides, L. Cuba, Trinidad, Venezuela

Guzmannia tricolor, R.P. Cuba, Trinidad, Venezuela Caraguata lingulata, *Lindl*. W. Indies (Trinidad), Guiana.

339 Read Tritoma for Tritonia, and add after 23rd line— PONTEDERIACEÆ.

Pontederia crassipes, Mart. Trinidad, Guiana.

344 Add after Oryza sativa, O. latifolia, Desv.

347 Read Bahia for Bahai.

" Arthropteris for Arthopteris.

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PROCEEDINGS

OF THE

SCIENTIFIC ASSOCIATION

OF

TRINIDAD.

PART VII.]

[JUNE 1869.

Tuesday, 12th January, 1869.

R. J. LECHMERE GUPPY, F.G.S., F.L.S., &c., President, in the Chair.

The following Visitor was introduced;—Dr. Forbes Newsam, by Mr. Lambert.

The following donations were announced:—

- 1. "The Annals of the Lyceum of Natural History of New-York." April, 1868. Presented by the Lyceum.
- 2. "Notes on the Land Shells of Trinidad, Grenada, and Dominica." By Thomas Bland, Esq., F.G.S. Presented by the Author.

The Secretary read the following Report:-

As Secretary I have to present the following statement of the progress of the Association during the past twelve months, and of its condition at the end of that period.

The numbers of the Association do not show any augmentation since the last Report. This is in some measure owing to the fact that the names of several of our former members have been removed from the list in consequence of non-compliance with the rules.

We have elected 5 members and 2 corresponding members during the preceding year; one of the latter has been elected a full member, and is included in the former number. Three of the previous members have been removed from the list, and three have resigned, leaving the composition of the Λ ssociation as follows:—

| Members | 25 |
|-----------------------|----|
| Honorary Member | 1 |
| Corresponding Members | 11 |
| | |
| Total | 37 |

being a decrease of one member and an increase of one corresponding member as compared with the previous year.

The finances are, is to be noted, in a prosperous condition. The balance, however, would not have been so large had not the Fourth Part of our Proceedings fallen below the average size owing to the paucity of papers read during the first half of the year now under consideration. On the other hand during the last three months our expenses have been much increased by our meetings taking place in a room in a public building, and the necessity we have been under of providing some articles of furniture as well as refreshments for the members. Though this will be felt more in the ensuing year,

I see no reason to fear that our finances will prove insufficient, a proper degree of economy being maintained.

The hope expressed by the Secretary in his last report that the sale of the Proceedings would show an increase in the year just ended, has been amply realized, and it is gratifying to see so respectable an addition to our resources under this head; much of this is due to the sale of our Proceedings in England, a publisher in London having undertaken the Agency there.

The following is the balance-sheet of the Association on 31st December last:—

| RECEIPTS. | PAYMENTS. |
|-----------|---------------------|
| S c. | S c. Printing, &c |
| \$167 46 | \$167 46 |

The following list comprises the Papers that have been read:—

- 1. The Annual Report of the Secretary.
- 2. Table of Rainfall for 1863-4-5-6-7. By T. W. Carr.
- 3. R. J. Lechmere Guppy, F.L.S. & G.S.—Note on the Earthquake of 7th July, 1868.
- 4. Capt. Henry Kelsall, A.D.C., of H.M. 16th Regt.—Notice of the occurrence of the Scarlet Tanager in Trinidad.
 - 5. The Hon. R. Hill.—On Poisonous Fishes.
- 6. Dr. Günther, F.R.S., &c.—Note on Three Cyprinodontes, Small Freshwater Fishes of Trinidad.
 - 7. The Hon. R. Hill.—On Fish-poisons.

- 8. R. J. Lechmere Guppy, F.G.S. & L.S.—Further additions to the catalogue of Land and Freshwater Molluska of Trinidad.
- 9. Henry Prestoe, Government Botanist.—Catalogue of Plants in the Botanic Garden.

The latter paper which is a valuable contribution to our stock of knowledge relative to this Island, will appear in the next Part of our Proceedings. As it will occupy much space, special arrangements have been made by which the expense of printing will not fall on the Association.

Donations of various publications have been made by the Sociedad de Ciencias of Caracas, and the exchange of our respective proceedings has been agreed-to by that Society and ourselves. It is much to be wished that other scientific bodies in this part of the world, of which there are unfortunately but few, would similarly unite with us in the diffusion of valuable information.

Allusion has already been made as to our having obtained a place of meeting in a public building. Our accommodations are, however, anything but satisfactory, and it is to be hoped that before long better arrangements on this point will be made.

I should bring under the notice of the Association the necessity which will soon arise for binding the papers and books presented to the Society, and of adopting some rules whereby such donations may be made more accessible to the members for reading and reference.

HENRY F. J. GUPPY,

Secretary & Treasurer.

The following communication was read:—

Notes of a Voyage round the Island of Trinidad in October, 1868.

By Thomas William Carr.
(Communicated by the President.)

PART I.
(ABRIDGED.)

Mr. William Tucker having invited me to accompany him on a coasting voyage, I gladly took advantage of his invitation, with a view to make myself better acquainted with the geography and natural history of the island. We sailed from Port-of-Spain on the 11th October last, and ran down to Monos to take in ballast. We neared that Island towards 3 p.m. during a southerly squall heralded by thunder and accompanied by driving rain, the wind veering round to east, and going down in about three-quarters of an hour as the storm passed by to the West.

We were fortunately so close to our destination that we were able to gain shelter behind Dominique Point, and run into l'Anse Maho in the bottom of Dehert Bay, anchoring just as the squall and gloom reached their height. We lay nearly landlocked; and the storm, by the rapidity of its passage, not having had time to raise a sea in the Gulf, we were in still water.

This squall recalled to our minds that it was the anniversary of the last Hurricane by which the island had been visited: this, the only Hurricane of which I (or Mr. Tucker) had had any experience, set in near midnight of the 11th October, 1847, lasting in strong but fitful blasts for about 3

hours. Trinidad was swept by the southern skirt of a Hurricane, which having exerted its full force in passing over Tobago, ran in a path nearly parallel with our Northern shores, striking Carupano and Pampatar (Margarita.) Its influence was slight to the south of the Caroni and the Oropouche rivers, and in Naparima it was not felt at all. Trinidad, Toco suffered most, being nearer to the heart of the storm than any other exposed quarter. In town, the Dry river ran wild, and the bridges were carried away. vallies running down through and from the northern range of mountains, Cacao estates suffered from the fall of the Bois Immortels; fallen Bamboos choked the Carenage road where it passes through the Hope estate in the mouth of the Diego-Martin valley, and Plantain and Manioc fields suffered much. Beyond the injuries and the wreck of the boats and droghers in our harbor, no further notable harm was done. The larger craft held to their anchors, as they generally have done here in similar cases, thanks to our excellent holding ground (mud), to our enclosed position, and to the merely third or fourth-class character of the few Hurricanes by which we are visited. Only four Hurricanes are recorded as having touched this island within the present century; they occurred on

18th October, 1809.12th August, 1810.23rd June, 1831.12th October, 1847.

That of 1831 was the worst, and was felt throughout the Island—the wooden jetties at San Fernando and Port-of-Spain were destroyed, many feluccas wrecked and several ships were driven on shore, but the bottom being mud these were subsequently hauled back into deep water unhurt. On this occasion also the Dry River overflowed its banks.

The plants I particularly noticed in Monos were the following:—

Tecoma stans (Bois flambeau.)

Cnidoscolus napaeformis.

Lantana camara (Sage.)

L. radula.

Cordia cylindristachys (Black Sage.)

C. interrupta.

Blechum Brownei.

Stachytarpheta cayennensis (Bastard Vervains.)

S. jamaicensis

Cassia bacillaris.

Cosmos sulphureus.

Desmodium axillare.

D. incanum.

Crotolaria incana.

Evolvulus sericeus.

Pitcairnia angustifolia.

Anthusium Huegeli. Wulffia havanensis.

Randia aculeata.

Chiococca racemosa var.

Pithecolobium oblongum.

Bumelia buxifolia.

Brunsfelsia fallax.

Critonia parviflora.

Peperomia obtusifolia.

Pedilanthus tithymaloides.

Solanum lanceifolium.

S. radula.

Miconia sp.

Macfadyena sp.

Ogiera ruderalis.
Wedellia caracasensis.
Paritium tiliaceum.
Sophora tomentosa.
Acacia paniculata?
Combretum sp.
Gomphia nitida.
Dioclea guianensis.
Cypsela humifusa.
Lonchocarpus pentaphyllus.
Securidaca Brownei.

A small tree, 12-15 feet high, not unlike, in stem, branching and proportions, that I can recollect a standard Apple tree to be, and that grew pretty commonly along the eliffy shores, presented a beautiful appearance, having shed its leaves, or nearly all, and being in full blossom with delicate bright-yellow spreading-petalled flowers. The long narrowbased expanding yellow petals remind one of the orchid-like flowers of the Stigmaphyllon convolvulifolium, a wild vine running over wild shrubs in the outskirts of Port-of-Spain, or of the S. diversifolium, a scandent shrub with a smooth mangrove-like leaf very common in Mangrove swamps. It is Gomphia nitida. It flowers profusely on short panicles, and would be very ornamental in a garden when in flower. To my surprise, a person who accompanied us, a native of Monos, in answer to an inquiry as to its common name, said it was 'Mangle Blanc': whereas this was stated by Mr. Crüger to be Laguncularia racemosa, a Combretad. Trivial names are applied, in this country at least, on decidedly trivial grounds and quite regardless of repetition, how many Lilaes, Vervains, Sages, Cherries, Pommes, Olives, &c., have we not? belonging to various natural orders, widely apart—and is it

not so, over the world, with Cedars, Oaks, Beefwoods, &c,? Such confusion shows the value of a fixed systematic nomenclature, but as this can never come into common use, we should endeavor, in common names, to hold to some special and if possible the aboriginal name of a plant, as Mammee instead of Mammee-apple, Jambolan instead of Java-plum or its absurd creole alternative of Prune mariage, Avocado instead of Avocato-pear, Alligator-pear or Zaboca, and so on through numberless instances. I once asked an old black man what, if any, common name was given to a pretty pinkflowering plant (Stachytarpheta mutabilis)—pointing to it—"wha' we caal 'im, hea'about?—Queen-Victoria dressin'-gown-bush,—da he naim,—putty flower!"

On the beach of l'Anse Caribe a Conchologist would look in vain for a single shell; yet a friend who stayed there ten days during last month, December, brought back from it not less than 30 species, in various condition, whole, broken, and fragments. We had been talking of shells before he went down, and when there, having little occupation or variety of modes in which to pass the time, his household amused themselves with seeking shells by scraping aside the stones and fine gravel. Columbella mercatoria, Nassa antillarum, Cerithium vulgatum, Cerithium versicolor and Purpura auriculata, were numerous; Murex pomiformis, Columbella lævigata, Capulus intortus, Nerita praccognita, Siphonaria lineata and the handsome Triton pilearis were pretty frequent—the remainder were generally single specimens or fragments—these were all what a malacologist would call dead shells, indicating nevertheless the existence of as many living species of mollusks in the sea washing that shore.

On the very narrow beach cleared of the bushes for a land-

ing place, there were a number of *Trigona Mactroides*, the valves united but the animal invariably gone—they had apparently been gathered for cooking, and, after boiling, the meat had been taken out without breaking the hinge. The same remark applies to the *Asiphis rugosa* and the *Venus erenulata* also found here in considerable numbers. I saw no other shells here than those four sorts. The bottom of this bay is probably too calm to allow of shell fish or dead shells being driven ashore on its beaches.

Tuesday, 9th February, 1869.

R. J. LECHMERE GUPPY, F.G.S., F.L.S., President, in the Chair.

Edward Johnston Hammond, Esq., M.R.C.S., L. was elected a Member.

The following communication was read:—

NOTICE of some new MARINE SHELLS found on the SHORES OF TRINIDAD.—By R. J. Lechmere Guppy, F.L.S., F.G.S. &c,

Purpura trinitatensis n. sp.

A solid ovate yellowish subrimate shell adorned with numerous rounded spiral ridges which are crossed by fine imbricating striae. Whorks about 6, with 4 spiral rows of obture elongated tubercles, of which the two upper rows are much the largest, the superior one forming the angle of the whorls. Suture hidden by a row of stout curved and reflected lamellæ, of which there are about 3 above each of the tubercles on the angle of the whorl. Spire conic, sharp. Mouth pink within and often ornamented with two or three more or less interrupted spiral red or chestnut lines corresponding to the external rows of tubercles. Aperture oval with a small and decided posterior canal forming the succes-

sive sutural lamellæ; anterior canal open and a little reflected. Pillar lip smooth, flattened or hollowed out, bright pink; outer lip denticulate, obsoletely striate within. Height 40 millimetres, greatest breadth 27 mill., longest diameter of aperture 26 mill.

A species somewhat resembling P. mancinella, but with a sharper spire and a more decided striation. The sutural lamellæ are well developed like those of P. coronata. There is a strong ridge round the base. Gulf of Paria.

Cardium eburniferum n. sp.

Shell a little angularly suboval, moderately tumid: externally marked with irregular orange-brown spots, and adorned with 35 narrow imbricated ribs closely covered towards the margins of the shell with numerous porcellanous semitubular tubercles, which are thicker anteriorly; posterior edge nearly straight, strongly serrate. Hinge-teeth $\frac{1-1-1}{1-1-1}$ —strong. Interior salmon-color, growing white towards the strongly dentrate margins which are yellowish. Height 52 mill., length 45, thickness 40. South Coast of Trinidad (T. W. Carr).

Cardium haitense Sowerby.

Quart. Journ. Geol. Soc. vol. vi, p. 52, pl. x, f. 11.

An oblique subovate shell with 20—24 radiating nodose rather square ribs wider than their finely crenate interstices. Allied to *C. subovale* Brod.

This was originally described by Sowerby as a fossil from Haiti, but I have dredged two small examples of it in the Gulf of Paria.

Area centrota Guppy.

Proceedings of the Scientific Association, p. 175 (Dec. 1867).

This species was described as a fossil, but I have since ascertained that it is likewise living on our coasts, having been collected by myself on the shores of the Gulf of Paria, and by Mr. Carr on the South Coast. Its umbones are often, pink or red, which color is visible inside as well as outside and the shell has a hairy epidermis, generally worn off at the umbones. Height 17, length 24 mill, The following is the original description:—

"Transversely subrhomboidal, with a strong wide carination running from the umbo to the posterior angle; ornamented with many (36-38) squamosely nodose radiating ribs each with a fine subsidiary thread-like rib in the nrrrow interstice; anterior margin short, rounded; posterior margin strongly sinuate, angulate above with the hinge-line and forming a more rounded angle with the strongly crenate lower margin. Hinge-teeth small in the middle of the straight hinge, but becoming larger and diverging considerably towards the angles; ligamental area more or less grooved, especially anteriorly."

Ticracia dissimilis.

Ovate-oblong, compressed, white, roughened by numerous fine granules which are generally arranged in lines radiating from the umbo; transversely excentrically plaited; anteriorly rounded, posteriorly vertically truncate, with a keel (most prominent on the smaller valve) running from the umbo to the lower posterior angle. Height 27, length 40, thickness 15 mill.

This is nearly allied to *T. plicata*, which Reeve (C. I. Thracia, 7) considered it to be. Our shell is rather interme-

diate between *T. plicata* and *T. magnifica*, differing from the former in ornamentation and general shape. On a tablet in the British Musenm the name *dissimilis* is applied to our species; but I have not been able to find any authority for that name, which I now adopt for the shell.

The animal is furnished with two long siphons separate for the whole of their length and coarsely fringed. The epidermis along the posterior margin extends beyond the the shell and covers the bases of the siphons.

Tuesday, 13th April, 1868.

R. J. LECHMERE GUPPY, F.L.S., F.G.S., &c., President, in the Chair.

The following Donations were announced:—

"Journal of the Society of Arts"—Nos. 819, 824, 825, 826, 827, 837, 838, 832, 840. Presented by the Colonial Government.

The following communication was read:—

"On the Manufacture of Sugar by Evaporation." By The Hon. Henry Stuart Mitchell, M.D., Ph.D.

The last communication which I had the pleasure of submitting to the Association, was an examination of the methods in use or proposed for obtaining the juice of the Sugar Cane in as nearly a state of sugar and water as possible. Experience has decided clearly in favour of slicing the cane and then washing out the saccharine element with water. This may be done in more than one way, but it may be affirmed that science points out as the most perfect mode that in which the cane after the process of slicing is exposed to such a heat under 212° as will be sufficient to fix the albu-

men-oil and colouring matters and at the same time prevent any degenerating process from beginning through the action of the air on vegetable ferment or otherwise till ample time elapse for driving off the superfluous water and isolating the whole sugar in a state of purity. It was further stated that the next best mode of extraction, where the desiccation of the slices was undesirable, would be to macerate the slices as they fell in vessels containing water dosed appropriately with bisulphite of Lime. In either case the displacement of the sugar would be attained in the former methods entirely, and in the latter to extent of about nine-tenths of the whole but of somewhat inferior purity. Whenever the slightest impurity occurs, it should be at once removed by filtration, through charcoal, as it may be safely maintained with Dmitri Davidou, probably the best practical writer on the manufacture of Beet-root sugar, that previous to evaporation, "the juice must be in a state of perfect purity," To this axiom every manufacturer who hopes for success must implicitly conform, and the planter in these colonies who chooses to incur the extra expense and trouble, will yet find it much easier to do so in the earlier stages of manufacture, than in manipulating the comparatively weak but complex juice of the Beet in Europe, or in refining, an originally low quality of Muscovado.

To attain such purity animal charcoal is the agent almost universally employed, but wood charcoal and many shales possess similar power and though in less degree have been occasionally used as substitutes. To gentlemen connected with this Colony it must be interesting and may be profitable to know, that in the Bitumen which exists so abundantly in the Pitch Lake and elsewhere, they possess a substance which carefully manipulated, equals animal charcoal in decolorising power, while it communicates no unpleasant smell to the filtrate, and as refuse becomes a valuable cane-manure. To return to the subject of these remarks, the Evaporation of Cane-juice. It is clear that whatever the mode employed, the end to be obtained is in all instances the same, namely, to get rid of the superfluous water in the shortest time, and with least injury to the remaining sugar—in other words, to expose the largest surface of liquid to the largest heating surface under such circumstances as do not necessarily involve deterioration of the liquid. Omitting for the present any consideration of Vacuum-pan working, which is the most perfect as well as the most expensive, I shall confine these remarks to evaporation from the inclined plane and by the Shower.

The Inclined Plane or tray was originally described by its Inventor in 1837, as a shallow trough 6 metres long and 2 metres wide, made of copper and heated by steam, with the lower end at such an inclination, that the Beet-root juice when poured on the upper part in a state of "perfect purity" took two minutes and-a-half to reach the lower end, whence it fell in a continuous stream, marking 221 degrees of Beaumé, the temperature on the surface never marking above 72° of Reaumur (167° Fahr.) This inclined plane was imperfectly divided throughout its whole extent by transverse perpendicular flanges alternately attached to the opposite sides of the tray in such a manner that the liquid in its descent had to traverse the whole breadth of the pan before escaping at the free end of each flange to course along the next oneeach flange thus acting as a dam or gutter till the liquid reached its free end, descending to the next, and so on, till the liquid to be evaporated come in contact with, many hundred feet of evaporating surface. A blast of air along this surface as proposed by the inventor, but not put in execution by him, would, if heated or even dry, have more than doubled the evaporative effect. Dmitri Davidou then proceeds to state the results obtained in the following language: "Les produits bruts que j'ai obtenus l'année passée (1836) de la betterave très alterée, à l'aide de mon plan incliné (après lequel j'achevai la concentration du sirop dans un cylindre tournant) avaient la blancheur de la neige et offraient l'aspect du sucre en pains par le rapprochement compacte de leurs crystaux, mais comme les sirops n'avaient point subi l'action violente du feu, la saveur, etc."

These results are brilliant, and it is not astonishing that a pure juice (for Davidou insists on purity as essential) should when rapidly evaporated by steam in a copper vessel at a low temperature produce a white concrete, the wonder is that a system so simple and presenting such advantages, should have remained in abeyance till within the last 3 or 4 years, when it has been revived by Mr. Fryer in the introduction of the Concretor. This last, a modification of the inclined plane and cylinder of Davidou, appears to be a wonderful improvement on the carron coppers, producing in a single concrete form, easily made, handled and shipped with little or no loss, what was formerly shipped with great trouble as the two separate articles, sugar and molasses with an eventual loss on their aggregate of seldom less than 12 or 14 per cent. Mr. Fryer rates the gain at something over £4 per ton by employing the Concretor; I am inclined to place it much higher if the apparatus be worked with care, not that it will ever give or was ever intended to give a white concrete like

Davidou's, its iron surface cannot be kept as clean as that of the copper plane, nor can its open fire be as carefully regulated as a steam supply. Yet the principle is one whose adoption must lead gradually from one modification to another till it end in the production of pure concrete or loaf sugar; this was probably not intended by Mr. Fryer, but to me the conclusion appears to be inevitable and not remote.

The second method of evaporation to which I would direct your attention is the "Shower;" a process which may dispute the palm with the inclined plane of Dmitri Davidou or the more recent Fryer's Concretor-inasmuch as the surface it exposes, either to steam or heated air, is practically unlimited. and the heat does not rise high enough to scald the fingers, The application is as follows: premising as in the preceding mode that the cane-juice to be operated on is perfectly pure, it is received into a vessel heated by steam or otherwise; to this is adapted a pump, endless belt or other suitable elevator, which by its action raises the liquid to be evaporated to any given height above the receiving vessel, into which it again falls through a sieve or perforated surface in as many dropping rills as there are perforations in the sieve; through this "Shower," which gives its name to the apparatus, dry or heated air may be driven or not, according to the speed of evaporation required. It is clear that by increasing the height of the Shower and the amount of dry air driven through its particles or drops, the superfluous moisture may be driven off with such speed as to cause almost instantaneous evaporation. The action of the apparatus when used with water illustrates its power more clearly. When applied to a vessel 3 feet wide by 5 feet long 2 feet deep, in which the water was made to boil fiercely, the temperature of the water

immediately sunk to 150° fahrenheit, nor could the skill of the fireman raise the heat higher, as long as the "Shower" was in action. This mechanism, including the Fanner blast, was worked successfully on a practical scale before Lord Harris, the Governor of Trinidad, and several Members of the Legislative Council, in 1849, and those present satisfied themselves, that while the Shower was in full action and the evaporation at its quickest, the syrup could be handled with impunity. The importance of using cane-juice or syrup in a state of perfect purity is so great, that you will perhaps excuse me for adding a few words on this subject, and recommending to your careful examination an automatic or selfacting process for clarifying and cleansing cane-juice or other materials in the earlier stage of evaporation. It was borrowed originally from Cuba, and subsequently patented in Trinidad and Demerara

Tucsday, 8th June, 1869.

R. J. LECHMERE GUPPY, F.L.S., F.G.S., &c., President, in the Chair.

In the absence of the Secretary, Dr. Knaggs was requested to act in his place.

The following Donations were announced:—

"Journal of the Society of Arts," Nos. 834—839. Presented by the Colonial Government.

"Scientific Opinion," Nos. 1—20. Presented by the President.

NOTICE OF MEMOIR.

Hydraspis Gordoni.

Dr. J. E. Gray has described to the Zoological Society of London a new Tortoise from Trinidad, which it was proposed to call Hydraspis Gordoni, a specimen having been deposited by The Hon. Arthur Gordon in the Society's Gardens.

[R. J. L. G.]





